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ABSTRACT

The Wisconsin Career Information System (WCIS) is a joint effort by several state agencies, institutions, and interested individuals to develop and disseminate accurate, current, and locally relevant occupational information to assist persons making vocational choices. One of eight state-wide occupational information systems funded by the U.S. Department of Labor National Occupational Information Service, it has completed three years of its four-year grant. In its sixteen files it utilizes computerized and manual information and audiovisual and printed materials relating to national and state occupations, training institutions, institutions of higher learning, financial aid, human resources, and military careers. The fields are organized to give information by occupational titles, rather than by specific job titles. Cross-reference files locate information on a particular occupation or job in the various files. Information sources include the Department of Labor; employers, employees, and trainers in the particular fields; institutions; and the Higher Education Aids Board. Three hundred and sixty-nine user sites are maintained at high schools, vocational/technical schools, universities and colleges, job service/WIN offices, Department of Vocational Rehabilitation offices, CAP Agencies, and CETA. Plans for the fourth year include further file development and modifications, requests for future federal aid, and an increase in user numbers and services. (The appendixes contain information on WCIS administration and user conferences, comments from users, sample products such as the SORT Index and user guide, and copies of marketing materials.) (ELG)

ED164840

# WISCONSIN CAREER INFORMATION SYSTEM

**OCCUPATIONAL PLANNING/** Descriptions, Worker's Comments, Employment Outlook, Salary, Entry Methods, Training Requirements, Career Ladder, Regional Data, Occupational Planning Tools

**EDUCATIONAL PLANNING/** Vocational Schools, Proprietary Schools, College, Universities, Graduate Schools, Community Colleges, Financial Aids, Scholarships, Military Training, Educ Planning Tools

**LIFE PLANNING/** Employability Skills, Leadership Activities, Community Resources, Professionals' Resources, Information Integrated through Cross-References

**A Service of the Wisconsin Vocational Studies Center, University of Wisconsin-Madison**

# ANNUAL PROGRESS REPORT

Wisconsin Career Information System

July 14, 1977 - July 13, 1978

Third Year of Operation

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September 1978

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## What's new at WCIS (formerly WOIS)

- Our name is new. WOIS has become WCIS (Wisconsin Career Information Service). We feel that our new name better describes the services we offer. WCIS has information on specific occupations, on educational opportunities in Wisconsin, and information on life planning. We chose our new name because it suggests this wide variety of information.

- Our occupational information is new. Each description has been reviewed, revised and rewritten. During the last year WCIS asked educators, employers, and employees to read a description of their occupation and tell us what should be improved or added. We took their suggestions and re-wrote each description at a level appropriate for high school students.

- There's new information in the occupational description. We asked our reviewers to tell the advantages and disadvantages of the occupation. Then we included their opinions in a section of the occupational description called Advantages and Disadvantages.

- There's a new file called Leadership, Education, and Development (LEAD). This provides students with information about school clubs and organizations as well as information about vocational programs. In addition, it gives brief definitions of important terms such as social security insurance, apprenticeship and CETA.

- The printed version of WCIS is new. Volume 1 contains the occupational descriptions. This volume is bound and is typeset on newsprint. Volume 2 contains educational references, information on financial aids and the lead file.

- The State Education and Training file (STET) has a new list of selectors which makes the file easier for students to use. It also contains a section called Unique School Strengths which gives information about specific institutions.

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15. Supplementary Notes

16. Abstracts

The Wisconsin Vocational Studies Center, University of Wisconsin-Madison, has been chosen by the U.S. Department of Labor National Occupational Information Service to implement an occupational information system in Wisconsin under a grant to the Wisconsin Manpower Services Council. The Grant was one of an initial eight for state-wide occupational information system development. It is expected to continue over a period of four years with the amount of federal aid decreasing after the second year until agencies and users bear the total cost of the system. The Wisconsin Career Information System (WCIS) combines computerized and manual information files, audio-visuals, and printed materials relating to national and state occupations, training institutions and institutions of higher education, financial aids, human resources and careers in the military. The central staff of WCIS collects information from such "providers" as the Job Service, Department of Labor, and educational agencies and organizes it for easy individual access by such "users" as h.s. students, the unemployed and other job seekers.

17. Key Words and Document Analysis. 17a. Descriptors

| | | |
|---|---|---|
| Computers | Job description | Skilled workers |
| Counseling-vocational interests | Labor | Socioeconomic status |
| Demand (economics) | Labor unions | Specialized training |
| Earnings | Manpower | Students |
| Economic conditions | Manpower requirements | Supply (economics) |
| Education (includes training) | Manpower utilization | Systems analysis |
| Employment | Placement | Technical schools |
| Evaluation | Questionnaires | Unionization |
| Information systems | Salary surveys | Unskilled workers |
| Job Analysis | Schools | Vocational guidance |

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Career Information System

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## Preface

The third annual progress report of the Wisconsin Career Information System (formerly, Wisconsin Occupational Information System) is an attempt to describe the activities and progress which has taken place during fiscal year 1978.

During this time period the Wisconsin Career Information System project was operated with funds from the Department of Labor-National Occupational Information Services-(now known as the Division of Career Information Services), the Wisconsin Governor's Manpower Office, the Wisconsin Board of Vocational, Technical and Adult Education, and user fees from sites not covered by consortium agreement. The Governor's Manpower Office received the Department of Labor grant and in turn subcontracted it to the Wisconsin Vocational Studies Center for development. A portion of the information development activity was subcontracted to the Department of Industry, Labor and Human Relations as part of the overall plan for development.

Staffing for the project was done at the Wisconsin Vocational Studies Center with some staff continuing into the third year. The report reflects the combined efforts of this staff and the cooperating agencies in implementing Wisconsin Career Information System in its third year of operation.

NOTE

The material in this project was partially supported and prepared under Grant No. 75-55-76-01 from the Employment and Training Administration, U.S. Department of Labor, under the authority of Title III of the Comprehensive Employment and Training Act of 1973. Grantees undertaking projects under Government sponsorship are encouraged to express freely their professional judgment. Therefore, points of view or opinions stated in this document do not necessarily represent the official position or policy of the Department of Labor.

## Acknowledgments

During the third year of Wisconsin Career Information System operation it was readily apparent that many individuals and organizations would contribute significantly to the development of the project. Mentioning them by name would fill another book, but in an effort to recognize these people, I will identify major groups which assisted in this effort. First, the Wisconsin Career Information System Board provided able direction to the project as well as support for its activities. The regional computer centers, the Cooperative Educational Service Agencies, the many counties and the Local Vocational Educational Coordinators across the state, the state agencies such as the Department of Public Instruction, the Vocational, Technical and Adult Education Board, and the Department of Industry, Labor and Human Relations, the Governor's Manpower Office and others all responded with cooperation and enthusiasm when called upon for help or to deliver their part in the project.

At the national level the Department of Labor-National Occupational Information Services (now Division of Career Information Services) provided considerable help and service to Wisconsin Career Information System staff during the year.

Lastly, a word of thanks is due the staff who toiled diligently to achieve the project's third year goals.

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# Wisconsin Career Information System

An Overview


## Abstract

The Wisconsin Career Information System (WCIS) is a joint effort by several State agencies, institutions, and interested individuals to develop and disseminate accurate, current, and locally relevant occupational information to assist persons making vocational choices. To achieve this goal, the WCIS will: 1) implement a statewide information dissemination system that is attractive to and capable of being used by a wide variety of persons, 2) develop an information base reflecting as realistically as possible the occupational structure and education/training resources of the State as a whole and its local areas, and 3) create an organizational framework responsive to user needs and the expertise of major information producers.


## Information Development

The format and content of information in WCIS at the beginning of the final project year represents a carefully constructed amalgamation of Wisconsin information produced locally and national information as delivered through the Guidance Information System (GIS, Time Share Corporation). Various types of information in the system are contained in different, independent files. The crucial linkage between the different files or different types of information is handled through a specially designed file, the state cross reference file (SOCC). The following list of files indicates the scope of information available through WCIS.

## Wisconsin Information Files

1. SORT (Wisconsin State Occupational Information File) - This file contains a short description of each occupation written at a sixth grade reading level.

2. SOCC (State Cross Reference Information File) - This file contains cross references between each occupational title and other files containing information related to the occupation. Files referenced include: DESC, OUTL, RESC, OCCU, LEAD, STET, ASOC, COL2, COL4, and GRAD.

   MSOC (Manual Cross Reference Information File) - This specially constructed file is used only with the printed version of WCIS. Cross references are to STET (manual version), LEAD (manual version), COL2 (mail search), COL4 (mail search), and GRAD (mail search).

3. DESC (State Occupational Description File) - This file contains three types of information: a longer, more technical description of the occupation; a description of advantages and disadvantages of the occupation provided by workers; and, information on methods of entry into the occupation.

4. OUTL (State Outlook Information File) - In this file, the word 'outlook' is used in an extremely broad sense. The file contains information on advancement opportunities for the occupation, national and state salary ranges, and traditional statements related to prospects for employment in the occupation. Also included in this file in the computer are references to six other files, REG1-REG6, for outlook information in distinct sections of Wisconsin.

5. REG1-REG6 (Regional Outlook Information Files) - These six files contain information on outlook for six different geographic regions in Wisconsin. Included are a statement describing the current employment situation, a statement projecting the current situation until 1985, reasons for the outlook, and an indication of the specific locations within the geographic region where employment is greatest.

6. RESC (Career Resources Information File, Occupational) - This file provides other sources of information on each occupation. Included are references to the Dictionary of Occupational Titles, Occupational Outlook Handbook, relevant bibliography and fictional sources, and associations or organizations which might have information.

7. LEAD (Leadership, Education, and Development File) - This file contains a broad range of information which might be important to people making career decisions. The content includes, but is not limited to, the following: definitions of terms important to understanding educational institutions, definitions of terms important to understanding occupations, information important in job seeking, and definitions of organizations, associations or institutions which might be important to those making career decisions.

8. SAID (State Financial Aids Information File) - This file contains general information for persons interested in obtaining financial aid to attend Wisconsin institutions.

9. CRES (Career Resources Information, General) - This file contains a bibliography of various career resource tools which might be of use to professionals in helping others in career decision making.

10. STET (State Education and Training Information File) - This file provides information on all less-than-four-year education and training institutions in Wisconsin. It includes information on vocational/technical schools, community colleges, junior colleges, and proprietary and trade schools.

National Information Files

11. COL2 (Two-year College Information File) - This file contains information on less-than-four-year educational institutions nationwide.

12. COL4 (Four-year College Information File) - This file contains information on four-year colleges nationwide.

13. GRAD (Graduate School Information File) - This file contains information on graduate schools nationwide.

14. AIDS (Financial Aids Information File) - This file contains information on a wide variety of specific grants, aids, and loans available nationwide.

15. ASOC (Armed Services Information File) - This file contains information on military occupations available to entrants into the armed services.

16. OCCU (National Occupational Information File) - This file contains national information on a variety of job titles.

Critical to understanding the structure of the Wisconsin system is understanding the difference between an occupation and a job title. In general, an occupational title refers to a cluster of job titles subsumed under it. Wisconsin occupational information is developed on occupational titles; whereas, the national information tends to relate to job titles. For example, Wisconsin reports on the occupational title social worker; the national GIS file reports on social worker, psychiatric, social worker, hospital, social worker, school and case aide. Due to this method of handling titles, Wisconsin occupational files, such as DESC, contain information on 353 occupations; whereas, the national file contains information on over 800 job titles. The SOCC file provides direction for users to obtain information on either occupational titles or job titles.

The occupational information in WCIS is obtained from a variety of sources. The primary source is the Department of Industry, Labor and Human Relations, Research and Statistics Division, which provides raw data available through the Department of Labor. Thus, all documents and information from the Department of Labor are utilized in developing the basic information. The most important other source of information is obtained through a validation process where in the composite, edited description is sent to two employees, one employer and, where appropriate, one trainer for review and comment. The final editing is performed by a technical writer and the staff at the Department of Industry, Labor and Human Relations.

Educational information is obtained directly from the institutions reported in the file. Yearly, a detailed questionnaire is distributed to each participating institution to be completed and returned. For validation purposes, this questionnaire is cross-checked against the previous year's entry and changes from the previous year checked to insure accuracy.

General Wisconsin financial aids information is obtained from the Higher Education Aids Board which directs the general aids program in Wisconsin. Some of the information on career resources is obtained through a free loan library maintained by the Wisconsin Vocational Studies Center.

## Information Delivery

WCIS bases its delivery system on the computerized Guidance Information System II (GIS II). The manual, printed version of WCIS is created directly from the computer information base. Two approaches are utilized in creating the printed copy: the occupational information is computer typeset in final form; other information in the printed version is produced by use of a Diablo terminal printing directly on line.

The computerized WCIS is delivered from both mini- and maxi-computers located throughout the state. As of September, 1978, twelve computing centers had WCIS available for distribution. Generally, most users of the computer version received output via some type of 30 cps terminal.

The printed version of WCIS is contained in two volumes of information. These volumes contain all information from the following computerized files: SORT, MSOC, DESC, OUTL, REG1-REG6, RESC, STET, LEAD, and SAID. Mail searches are available to printed version users for the following national files: COL2, COL4, GRAD, CRES, and AIDS.

Direct and "structured" access strategies are available for both the computerized and printed versions of WCIS. For both versions, direct access involves searching for the item of interest in an alphabetized list and following directions for locating the information. Structured access differs somewhat between the two systems. Computer users utilize the structured access approaches available in GIS II as adapted to the WCIS, SORT file. Printed version users utilize a printed scan process which allows a search for occupational titles utilizing approximately sixty occupational characteristics. This scan process is an adaptation of the system originally devised by the Michigan Information System. It should be noted, computerized users have available the printed information as well as the computer delivery. Typically, computer users utilize the printed version with medium and large groups.

Finally, in an attempt to keep costs of delivery as low as possible, WCIS makes extensive use of newsprint in both the computer and manual versions. For example, the most heavily used computer searching device is a short instrument called "Computer Questionnaire". Use of newsprint has allowed WCIS to provide a copy of instructions to each individual user of the system.

System Utilization

At the close of the 1977-78 project year, WCIS reported the following numbers of user sites.

| | |
|---|---|
| High School sites | 183 |
| Vocational/Technical School sites | 60 |
| University and College sites | 9 |
| Job Service/WIN offices | 64 |
| Department of Vocational Rehabilitation offices | 4 |
| CAP Agencies | 15 |
| CETA and others | 34 |
| Total | 369 |

For vocational school sites and Job Service/WIN office sites, these figures represent 100% of the potential sites possible. For the remainder, the percentage of sites covered varies from the DVR sites, approximately 10% of sites, to the high school sites, approximately 45% of sites. Overall, over 200,000 individuals across the state have access to WCIS services.

During 1977-78, over 25% of these potential users availed themselves of WCIS services. Of course, use varies by type of user site since need for WCIS services varies between individuals at, for example, Job Service offices and high schools.

The most detailed information available concerns use by high school students during 1977-78. These statistics indicate the degree of use by high school. Use of WCIS varies based on the length of time they have had the service. For high schools having the system two years, use approached 50% of the number of students in the 9-12 enrollment. For first year users, use varied from approximately 15% to 40%, depending upon the time of year the system was obtained. Between 1976-1977 and 1977-78, the number of actual users of WCIS increased almost threefold. It is anticipated, that this percent of increase will continue during 1978-79 due to the increased number of second-year users. Thus, WCIS expects over 150,000 users during 1978-79.

## User Services

In the Wisconsin system, user services staff perform several functions: development of all materials used in the field with WCIS computer or printed version products; carrying out on-site, group, and general promotional and marketing activities; and, providing on-site and regional inservice.

During 1977-78, user services staff carried out over 2000 on-site, group, or regional meetings, demonstrations, or inservices with users and potential users of the system. The efforts of staff were equally divided between marketing and inservice activities.

Many types of material have been produced for use with WCIS and to promote its adaptation by various user groups throughout the state. Major, significant materials include the following: a computer questionnaire device for use by computer users; a computer index; a scan device including manual, scan sheets, and scan worksheets for use with the printed version; various posters and displays for promotion and inservice; and, a content-interchangeable, threefold brochure for promotional use. For Fall, 1978, a filmstrip series to increase motivation for looking at occupational and educational information will be developed.

## Organization and Staffing

WCIS is established as a special task force of the Wisconsin Manpower Council, but with its own constitution and governing board of directors. The board of directors has full authority over the system and is composed of representatives from the following: Department of Industry, Labor and Human Relations; Department of Administration; Department of Health and Social Services; Department of Local Affairs and Development; Department of Public Instruction; Board of Vocational, Technical and Adult Education; University of Wisconsin System; Wisconsin Higher Education Aids Board; Labor and Business Representatives of Wisconsin Manpower Council; Employment and Security Division; and six to ten user agency representatives. The operation of WCIS is subcontracted to the Wisconsin Vocational Studies Center, University of Wisconsin-Madison.

The WCIS consists of thirteen staff. The positions are as follows: director, coordinator, four user services staff, three and one half information development staff, three clerical staff, and a half-time editor. WCIS subcontracts its technical computer services with the University of Wisconsin-La Crosse and contracts for the GIS program form Time Share Corporation. One and a half of the professional staff mentioned earlier are physically located at the Department of Industry, Labor and Human Relations and serve in the area of occupational information development.

In addition to the staff noted above, WCIS has been fortunate to have the services of ten community service specialists housed regionally and funded under Title VI, CETA. These individuals have been instrumental in WCIS being able to deliver intensive, on-site services to all user sites.

## Problems and Solutions

The solutions to the many problems which have confronted WCIS during its first three years of operation have been spelled out in the previous sections. For example, the content and format of the information files is a response to several specifically identified concerns of staff and users.

1. How can a national data base best be incorporated in a state information system?

2. How can the difference between job and occupational titles be clear to users?

3. How can the flexibility of the GIS file structure be maintained while, at the same time, simplifying use of the system?

The solution to these identified concerns was handled by construction of an independent, cross-referencing file to facilitate the movement of the users from one type of information to another. At the same time, this cross-referencing file allows the addition of more information to the system without losing the integrity of the whole.

A sample of problems and solutions include the following: use of newsprint for most user materials to solve the problem of high cost of printing and publication; development of a threefold brochure with interchangeable content to solve the problem of merchandising a constantly changing system; development of a large computer commands poster to facilitate on-site use of terminals; development of a motivational filmstrip to remedy a lack of interest in printed occupational information; and, development of an organizational pattern of a coordinator and team leaders in functional areas to insure overall integration of WCIS.

To date, funding of WCIS has been on a year-to-year, somewhat tenuous basis. Perhaps the greatest innovation of WCIS in this area was in the application for and use of Title VI, CETA funds for increasing the user services staff. Another significant funding question has been in the area of assessment of the user fee. Currently, WCIS charges a fee representing approximately one half the cost of services to those sites which are not covered by a state contribution from a

parent organization. Sites covered by state-wide contribution include vocational/ technical schools, CETA/CAP organizations and agencies, and Job Service/WIN offices. The fee for other sites if $0.45 per potential user per year; over 1000 potential users at a site results in one half the fee being charged to each user over 1000.

## Plans for the Future

Central to WCIS plans for continuation of the system following federal funding is a request currently being submitted by a consortium of user groups for general program revenue funding. The groups involved in this consortium funding request are the Department of Public Instruction covering high schools and junior high schools, the University of Wisconsin System, and the State Board of Vocational, Technical and Adult Education. The consortium arrangement will cover information development and, in part, information delivery. Not included would be funds to cover computer access such as use of a computer, telecommunications, and terminal rental or purchase. A fee would be maintained for those users not covered under the state GPR request.

## I. Administrative and Organizational Information

Throughout this report, the title "the Wisconsin Career Information System" (WCIS) will be used interchangeably with the "Wisconsin Occupational Information System" (WOIS) depending upon the context. The new title, WCIS, represents a change from the previous title, WOIS, approved by the WCIS Board of Directors.

### A. Consortium

The Wisconsin Career Information System is governed by a Board of Directors made up of representatives of information suppliers, suppliers of operating funds, and information users of the system. Board members representing state agencies are selected by their agencies. Board Members representing other groups are contacted by Board members or WCIS staff and asked about their willingness to serve on the Board. Names of those willing to serve are then brought to the Board for majority approval.

At the last Board meeting each year, officers are chosen to serve one-year terms. Ellen Hanson was elected to serve as Board Chairperson during the third year. John Storlie was elected as Vice-Chairperson. The composition of the Board of Directors for the 1977-78 project year was as follows:

Chuck Hackner
State Planning Office
Department of Administration

Terry Willkom
Department of Health and Social Services

Dick Johnston, Administrator
Division of Student Support
Higher Education Aids Board

Richard Sawicki
Wisconsin State AFL-CIO

Tom Hooker, Assistant Administrator for Job Service
Department of Industry, Labor and Human Relations

Lorran Celley, Vocational Education Consultant-Student Services
Wisconsin Board of Vocational Technical and Adult Education

Hartley Jim Jackson, Director
Bureau of Research & Statistics
Department of Industry, Labor and Human Relations

Gene Craven, Asst. VP Anal. & Information
U.W. System

Andy Cohn, Special Programs
Manpower Council

John Storlie, Computer Center Director
U.W. La Crosse

Al Thurner Director of Guidance Services
Milwaukee Public Schools

Ellen Hanson
Department of Local Affairs and Development

Ellen Meister
East K-12 Area Director
Madison Public Schools

Donald Jacobson, District Admin.
Superintendent of Schools, Holmen

Robert Van Raalte, Assistant Superintendent
Division for Instructional Services
Department of Public Instruction

Donald Mrdjenovich, District Admin.
Superintendent of Schools, Watertown

William Wilberg, Vice President
Wisconsin Manufacturing Commerce

Andrea Graff, Program Director
Skilled Jobs for Women

Ludwig Peterson
Director CESA 3

Donald G. Jones, Executive Secretary
WISCAP Directors Association

Paul May
Oregon High School

Spagnoletti
LVEC

The minutes of all Board Meetings held during the 1977-78 project year were recorded and distributed following each meeting (Appendix I A).

During the last Board Meeting of the current year, officers were elected for the next project year. Ellen Meister was elected Chairperson. Richard Sawicki was elected Vice-Chairperson.

During the year, two subcommittees of the Board were extremely active: the Fee and Finance Committee met on several occasions and, after much deliberation, proposed the fee structure for 1977-78 which was adopted by the Board. This fee structure will be discussed in more detail under User Services. The Long Range Planning Committee worked intensively with the project director considering various ways of extending WCIS beyond the conclusion of federal funding. Appendix I B contains the most recent document produced by this committee describing several cost/service alternatives and methods of producing continued funding. Efforts are on-going to carry out these plans through meetings with the various organizations described in them. Presently,

greatest effort is being expended in implementing a plan which will request general program revenue monies for support of WCIS.

B. Staff

In the fall of 1977-78, WCIS made several major modifications in administration and staffing patterns. Major changes included elimination of the positions of Deputy Director and Managers of Information Development and User Services and the replacement of these positions with a Coordinator of all functions. Organizational control is through an administrative team concept with different staff assigned leadership for each of four functional areas. Monies saved allowed an increase in clerical and student help and the addition of editing support from two part-time professionals.

The new structure is evident in the position descriptions below. The following staff served in these positions during 1977-78:

| | |
|---|---|
| Executive Director | Roger Lambert serves as the Executive Director of the Wisconsin Career Information System (WCIS). Dr. Lambert received B.S. and M.S. degrees in Education from the University of Wisconsin-River Falls. He received the Ph.D. in Education from Michigan State University. In his role, he provides leadership to the organization's activities, serves as liaison with the organization's activities, serves as liaison with WCIS Board of Directors, and is the major force in developing the long-range plan for the organization. |
| Project Coordinator | David Caulum serves as the Project Coordinator of WCIS. Dr. Caulum received his M.S. and Ph.D. in Guidance and Counseling from the University of Wisconsin-Madison. He is responsible for the direct supervision of all day-to-day staff activities. As such, he is responsible for the development and and implementation of all WCIS products and services. Additionally, he serves as direct liaison with several major user groups and as the WCIS representative on the Board Fee and Finance Committee. |
| Information Development | Peter Oemichen serves as Information Development Manager for the WCIS Project. He holds a B.S. degree in Economics. His experience in the field includes five years as an Occupational Analyst. Oemichen's supervisory areas as an Information Development Manager are to research, compile, analyze and report occupational information for the WCIS Program. Additionally, he provides technical assistance in developing an information reporting format which will accomodate information required for WCIS users. He is also team leader for occupational information development. |

| | |
|---|---|
| Delivery System Specialist | Carl R. Grady serves as the Delivery System Specialist for the WCIS Project. He received his B.S. degree from the University of San Francisco. His major responsibilities include data entry and information delivery processes as well as coordinating the acquisition of data for the other files in the WCIS system. Additionally, he serves as team leader for the data processing and other files team. |
| Evaluation Specialist | James W. Augustin serves one-half time as an evaluation specialist for the WCIS staff and program. He received his B.S. degree in Psychology from Trinity University and his M.S. degree in Psychology from Marquette University. Jim has completed his course-work toward a Ph.D. in Psychology at North Caroline State University. He is responsible for carrying out the design and implementation of evaluation of processes and impact. He is also team leader for evaluation. |
| User Services Specialist | Darcy Mellen-Sullivan serves as a User Services Specialist. She has received a M.S.E. degree from Drake University and a B.S. from Parsons College in Iowa. Her experience includes: teaching assignments of English and History on the high school level, counselor-interviewer for mentally retarded and Facilitator for assertive training groups. Darcy serves the northeast section of Wisconsin and is team leader for user services. |
| User Services Specialist | Dean Wiseman serves as a User Service Specialist. He has received a M.S. degree in Industrial Education from the University of Wisconsin-Stout and a B.S. degree in Education from the University of Wisconsin-Eau Claire. He has served as a District Administrator for 14 years, a high school principal and guidance counselor for one year and taught English and drama for ten years. Dean serves the north and north central sections of the state. He is also liaison with secondary education associations. |
| User Services Specialist | Lois Voigt serves as User Services Specialist. She received the B.A. degree in Secondary Education from Concordia Teachers College, River Forest, Illinois. She taught at the secondary level for three and one half years in Milwaukee. She received the M.S. degree in Counseling and Guidance from the University of Wisconsin-Madison in May 1977. Her internship for her M.S. degree was in the career resource center at Memorial High School, a WCIS user site. She serves the southwest and central parts of the state. |
| User Services Specialist | Mark Anderle serves as a User Services Specialist. He received an M.S. degree in Vocational Rehabilitation Counseling from Makato State University, Mankato, Minnesota, and a B.A. degree in Psychology from the University of Wisconsin-Madison. He worked as a Rehabilitation Coun- |

selor at the Minnesota State Reformatory for four years, and is active as an advisor for a student Christian organization, The Navigators, at the University of Wisconsin-Madison. Mark serves WCIS in the southeast section of the state.

Information Development Specialist — Kay Elwers is employed as an Information Specialist on the WCIS staff. She holds a B.A. degree in History from the University of Wisconsin-Madison. Her work experience includes ten years as a teacher of history and social studies at the secondary level and ten years with the Research and Statistics Division of Wisconsin's Department of Industry, Labor and Human Relations. She also has background in business and office work and currently serves as a member of the State Superintendent's Advisory Board for Business and Office Education. Additionally, she has served as a resource person in in-service teacher training programs dealing with career education. Kay is responsible for development of occupational information.

Information Development Specialist — Linda Abrahams is employed as an Information Specialist on the WCIS staff. She received a B.A. Degree in Journalism from the University of Wisconsin-Madison. She worked for the Department of Industry, Labor and Human Relations doing research for one year and has attended training sessions in Labor Market Analysis. Linda is responsible for development of occupational information.

Editor — Ellen Cray is an editor for WCIS. She has a B.A. in literature from New College in Sarasota, Florida. She also has an M.A. in English and an M.A. in English Applied Linguistics from the University of Wisconsin-Madison. Last year she was responsible for the validation and re-writing of Wisconsin's occupational descriptions. She is currently writing proposals and editing WCIS material.

In addition to the staff listed above, WCIS is served by twelve Community Service Assistants housed in various locations throughout the state. These individuals were hired under a Title VI, CETA project. Each of the User Services staff listed above is responsible for three of the Community Service Specialists.

C. WOIS/WCIS

The decision to change the name of the Wisconsin project from WOIS to WCIS was made during the spring of this year. Two reasons existed for the change: first, the WOIS funding agency had changed

its title during the previous year from NOIS to DCIS; and second, the emergence of a new federally-funded organization, the Wisconsin Occupational Information Coordinating Committee (WOICC) which led to confusion in terms of logo between WOIS and WOICC. This confusion resulted in many people in the state concerned about duplication of services which did not in fact exist between WOIS (WCIS) and WOICC. These concerns were brought to the board which then acted upon the name change through unanimous vote.

## II. Information Development

### A. Emphasis during the 1977-78 Project Year

Staff meetings in the beginning of the 1977-78 Project Year were focused on identifying major areas of concern within the system which needed modification or change before the final project year. These meetings resulted in the identification of several crucial problem areas:

1. The reading level of the existing material was analyzed as being too high for many potential users.

2. The printed version was extremely difficult to use, the data organized in a manner both unattractive and somewhat confusing.

3. Files of occupational information were becoming too long and were a test to the patience of many high school users, particularly those having ten CPS terminals.

4. The cross reference system which was imbedded in the occupational descriptions inhibited direct printing of the information for the printed version and was often overlooked by users at the terminal.

These problems were not viewed as previous errors but only as defects in a developmental effort.

Using input from all staff, a new file format was developed. Input from all staff insured that all points of view were represented: the integrity of the information developed by information development staff was maintained; the product to be utilized in the field would be easy to read and easy to use; and, the design would not inhibit the smooth operation of the program. Thus, the major work undertaken during the project year by information development staff involved modification and editing of all information in the system.

In addition, and as a part of the rewrite process, validation of all existing information was carried out. This validation process, originally encouraged by the DCIS project monitor, resulted in many valuable changes to the existing data in the system.

### B. WOIS, 1977-78 Version

The type of information delivered by WOIS during 1977-78 is best represented by the three examples below. The first block represents

the output from two files, SORT and SOCC. Both of these examples are drawn from occupation #9, Accountant. The next example is a printout for an institution, followed by the printout from one of the state financial aids questions.

X X X X X X X X X

STATE OCCUPATIONAL SUMMARY INFORMATION READY

9
ACCOUNTANT

OCCUPATION DESCRIPTION:
ACCOUNTANTS HANDLE THE FINANCIAL RECORDS OF INDIVIDUALS, BUSINESSES AND GOVERNMENT AGENCIES. THEY KEEP ACCOUNT OF AMOUNTS OF MONEY MADE AND SPENT. SOME ACCOUNTANTS SPECIALIZE IN AREAS SUCH AS PUBLIC ACCOUNTING, WHICH INCLUDES HANDLING TAX RECORDS AND OTHER FINANCIAL RECORDS OF INDIVIDUALS OR BUSINESSES. MANAGEMENT ACCOUNTANTS HANDLE MANY OF THE BUSINESS RECORDS FOR LARGE COMPANIES AND CORPORATIONS. GOVERNMENT ACCOUNTANTS INSPECT RECORDS OF PERSONS OR COMPANIES THAT CONDUCT BUSINESS WITH THE GOVERNMENT.

ACCOUNTANTS USUALLY WORK IN AN OFFICE ENVIRONMENT, ALTHOUGH SOME GOVERNMENT ACCOUNTANTS ARE REQUIRED TO TRAVEL EXTENSIVELY. TAX ACCOUNTANTS USUALLY WORK LONGER HOURS DURING THE TAX SEASON.

FOR MORE INFO ON THIS OCCUP., TYPE: QSOCCP9

STATE OCCUPATIONAL INFORMATION READY

9
ACCOUNTANT
DOT NO. 160.188

OCCUPATION DESCRIPTION:
ACCOUNTANTS MAINTAIN THE FINANCIAL RECORDS OF BUSINESSES, GOVERNMENT AGENCIES, CORPORATIONS AND PRIVATE CITIZENS. THEY RECORD EXPENSES AND PAYMENTS AND KEEP RECORDS OF PURCHASES AND SALES. THEIR TASK IS TO ACCOUNT FOR THE WAYS MONEY IS BEING MADE AND SPENT.

ACCOUNTANTS WORK IN THREE MAJOR FIELDS: PUBLIC, MANAGEMENT AND GOVERNMENT. PUBLIC ACCOUNTANTS WORK FOR ACCOUNTING FIRMS OR ARE SELF-EMPLOYED, SUCH AS TAX ACCOUNTANTS. MANAGEMENT OR PRIVATE ACCOUNTANTS HANDLE THE FINANCIAL RECORDS OF COMPANIES, BUSINESSES OR CORPORATIONS. THEY OFTEN SPECIALIZE IN TAXES, BUDGETING OR INVESTMENTS. GOVERNMENT ACCOUNTANTS EXAMINE RECORDS OF GOVERNMENT AGENCIES AND INSPECT THE FINANCIAL RECORDS OF BUSINESSES AND INDIVIDUALS DEALING WITH THE GOVERNMENT OR SUBJECT TO GOVERNMENT REGULATION. MANY ARE EMPLOYED AS INTERNAL REVENUE AGENTS OR BANK EXAMINERS.

THE AVERAGE STARTING SALARY FOR ACCOUNTANTS IS $12,000 PER YEAR. THE NATIONAL JOB OUTLOOK THROUGH 1979 IS VERY GOOD. BUSINESS GROWTH AND INCREASING NEEDS FOR ACCOUNTING INFORMATION ARE CREATING MANY NEW JOBS. IN WISCONSIN, 9780 JOB OPENINGS WERE PROJECTED FOR ACCOUNTANTS FROM 1970 THROUGH 1980. AT THIS TIME THE JOB OUTLOOK FOR WISCONSIN IS GOOD. FROM NOW UNTIL 1980 THIS SITUATION IS NOT EXPECTED TO CHANGE.

OTHER NAMES FOR THIS OCCUPATION:
MACHINE PROCESSES ACCOUNTANT
AUDITOR

REFERENCES TO OTHER INFORMATION IN WOIS:
FOR NAT'L. INFO TYPE: QNOCCP 005
FOR OTHER RESOURCES TYPE: QCRESP 009
FOR INFO ON VOCATIONAL TRNG. TYPE: QSTET E134/135
FOR INFO ON 4-YR COLLEGES TYPE: QCOL4 A133
FOR INFO ON COLLEGE PARALLEL PROGS. TYPE: QSTET A5

1970 EMPLOYMENT: 14320
1980 EMPLOYMENT: 18600

| REGIONAL DATA: | R1 | R2 | R3-4 | R5-6 | R7 | R8 |
|---|---|---|---|---|---|---|
| JOB OPPR (1970-80) | 2106 | 5033 | 1564 | 659 | 514 | 94 |
| CURR STATE EMPLMT | G | PA | G | PA | PA | PA |
| LONG RANGE OUTLOOK | IO | C | C | C | C | C |

METHOD OF ENTRY:
EMPLOYERS GENERALLY PREFER TO HIRE COLLEGE GRADUATES WITH A MAJOR IN ACCOUNTING. RELATED DEGREES, SUCH AS BUSINESS ADMINISTRATION, SOMETIMES ARE ACCEPTED BECAUSE THEY INCLUDE ACCOUNTING COURSES. SOME EMPLOYERS ACCEPT AN ASSOCIATE DEGREES IN ACCOUNTING WITH A FEW YEARS OF OFFICE EXPERIENCE. KNOWLEDGE OF DATA PROCESSING AND PUBLIC RELATIONS SKILLS ARE ALSO HELPFUL IN FINDING A JOB.

EMPLOYERS OFTEN ADVERTISE IN NEWSPAPERS AND TRADE MAGAZINES. THEY MAY ALSO CONTACT LOCAL COLLEGES.

X X X X X X X X X X

X X X X X X X X X X

STATE EDUCATION & TRAINING INFORMATION READY

17
MADISON BUSINESS COLLEGE
BUSINESS COLLEGE
MADISON
215 WEST WASHINGTON AVENUE
MADISON, WI 53703
608-256-7794
REGION 1, DANE COUNTY

GENERAL DESCRIPTION:
MADISON BUSINESS COLLEGE IS A PRIVATELY RUN BUSINESS COLLEGE WHICH OFFERS THE FOLLOWING COURSES:
GENERAL BUSINESS MANAGEMENT (ASSOCIATE DEGREE-4 SEM.)
ACCOUNTING (ASSOCIATE DEGREE-4 SEM.)
SALES & MARKETING (ASSOCIATE DEGREE-4 SEM.)
COURT & CONFERENCE REPORTING (ASSOCIATE DEGREE-5 SEM.)
EXECUTIVE SEC. (ASSOCIATE DEGREE-4 SEM.)
MEDICAL SEC. (ASSOCIATE DEGREE-4 SEM.)
LEGAL SEC. (ASSOCIATE DEGREE-4 SEM.)
BOOKKEEPING (DIPLOMA-3 SEM.)
GENERAL SEC. (DIPLOMA-3 SEM.)
GENERAL CLERICAL (DIPLOMA-3 SEM.)
STENOGRAPHIC SEC.(CERTIF.-2 SEM.)

NO LIVING FACILITIES AVAILABLE. STARTING DATES:JAN., MAY, SEPT.

TUITION & FEES:
TUITION IS $650 PER SEMESTER.

FURTHER INFORMATION:
FOR MORE INFORMATION ABOUT MADISON BUSINESS COLLEGE, PLEASE CALL 608-256-7794 AND ASK FOR THE DIRECTOR OF ADMISSIONS. (ALSO SEE WISC CARD P-05.)

X X X X X X X X X X

STATE AID INFORMATION READY

4
* ARE FIN. AIDS RELATED TO ADMISSION? WHEN DO I APPLY? *
YES, THERE IS A RELATIONSHIP BETWEEN FINANCIAL AIDS AND ADMISSION TO SCHOOLS. IN WISCONSIN YOU APPLY FOR ADMISSION SEPARATELY FROM FINANCIAL AID (PRINT ITEM 3, THIS FILE FOR WHERE TO APPLY FOR FINANCIAL AID). APPLY TO YOUR SCHOOL(S) BY THEIR APPLICATION DEADLINE (AVAILABLE FROM THEIR CATALOG, OR BY CALLING OR WRITING THEIR ADMISSIONS OFFICE).

IN WISCONSIN, WE HAVE WHAT IS CALLED A 'ROLLING DEADLINE.' MEANING THAT YOU SHOULD APPLY EARLY (BY MARCH 1ST) BUT CAN APPLY AT ANY TIME DURING THE YEAR. YOU WANT TO TRY TO APPLY EARLY ENOUGH TO ASSURE THAT ALL THE PAPERWORK CLEARS ALL ITS ROUNDS IN TIME.

As can be seen in these examples, users of WOIS during 1977-78 received high quality information in extremely compacted form. Particularly in the SOCC file, users were required to interpret many shorthand notations and a fairly complex table in order to obtain a full understanding of the information. The adoption of WOIS by numerous agencies and institutions (see User Services section, IV) lends credibility to the idea that the quality of information being delivered was superior to other products obtainable in the field. However, the difficulties in obtaining maximum usage at various sites (see Evaluation section, V) seems to confirm some difficulties in using the information.

During the first quarter of the 1977-78 project year, information development staff worked to update all salary and outlook information for each occupation and reviewed comments from users as to errors which had crept into the data. For example, the cross referencing from the occupations to the educational files contained in the SOCC descriptions was sometimes incomplete and, infrequently, inaccurate. Problems in cross referencing were carefully reviewed by several project staff and corrections made in the computer version for the spring update and to all printed materials, both that in use in the field and that still to be sent to new users.

In late December, 1977, information development staff began working on the information for the fall 1978-79 version.

C. WCIS, 1978-79 Version

The overall file structure, which was developed through the combined efforts of all staff, is contained in the diagrams on the next two pages. In the discussion which follows an example of each of the files will be provided using actual computer output from WCIS occupation #9, Accountant.

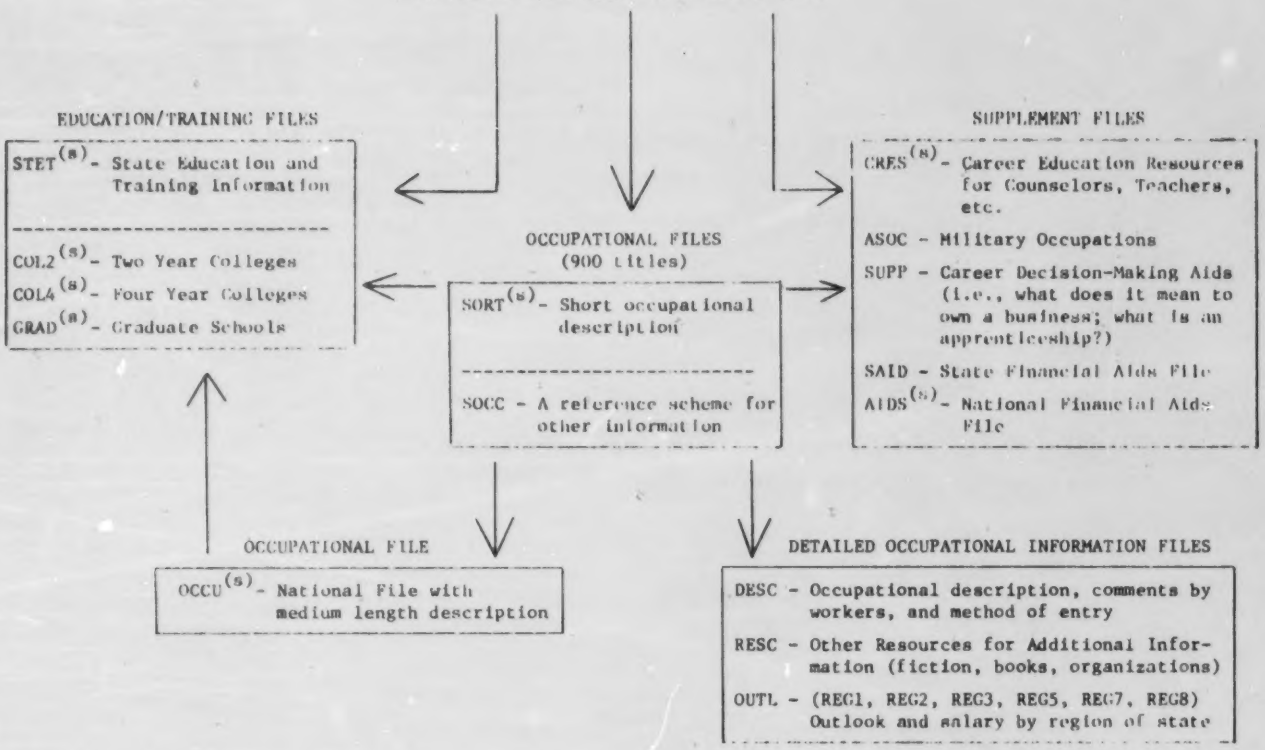
First, several advantages of this new file format can be pointed out:

File Plan for WOIS, 1978-79

Structure for Direct Access

Using

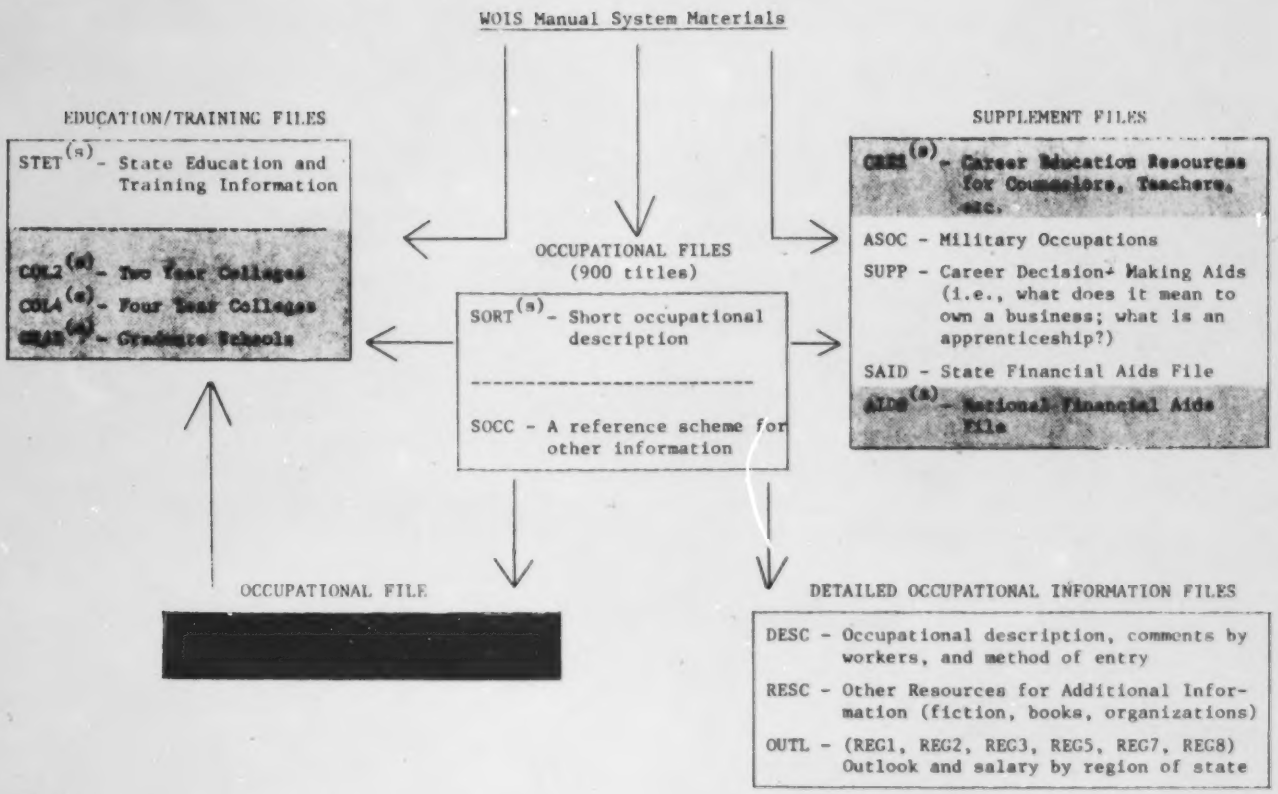
WOIS Index or Computer Questionnaire


EDUCATION/TRAINING FILES
STET(s) - State Education and Training Information
COL2(s) - Two Year Colleges
COL4(s) - Four Year Colleges
GRAD(s) - Graduate Schools
OCCUPATIONAL FILES (900 titles)
SORT(s) - Short occupational description
SOCC - A reference scheme for other information
SUPPLEMENT FILES
CRES(s) - Career Education Resources for Counselors, Teachers, etc.
ASOC - Military Occupations
SUPP - Career Decision-Making Aids (i.e., what does it mean to own a business; what is an apprenticeship?)
SAID - State Financial Aids File
AIDS(s) - National Financial Aids File
OCCUPATIONAL FILE
OCCU(s) - National File with medium length description
DETAILED OCCUPATIONAL INFORMATION FILES
DESC - Occupational description, comments by workers, and method of entry
RESC - Other Resources for Additional Information (fiction, books, organizations)
OUTL - (REG1, REG2, REG3, REG5, REG7, REG8) Outlook and salary by region of state

(s) Indicates a searchable file by characteristic

An arrow in the diagram above indicates cross-references or connections between different files or types of information. Such connections are crucial to WOIS use as a career exploration or career planning tool.

| Type of File | Content | Use: Examples of Questions the Information Answers |
|---|---|---|
| Education and Training Files | Information of all training and educational institutions in Wisconsin offering longer than 4 week programs<br>Information on all 2 year, 4 year colleges and universities in the U.S.<br>Information on most graduate schools in the U.S. | Where can I go to school to get the training I want? How much will it cost? What kind of place is it? What services does it offer?<br>Where can I go to school if I have unique needs; for example, I want to take Marine Engineering, run in intercollegiate track, live in a small city in the midwest, and experience strong competition in my studies?<br>What are the strongest virtues of the school? |
| Occupational Files | Information on 900 occupational titles ranging from jobs requiring less than high school graduation to those requiring a doctorate<br>Represents 90% of all jobs in Wisconsin<br>Detailed information on most common occupations in Wisconsin<br>Referenced to other types of information to expand awareness of the world of work | What does a particular occupation offer me: salary, fringe benefits, advantages, disadvantages as seen by workers, requirements such as high school courses and work experience, what is done in the occupation, major employers in Wisconsin, outlook by region of state, nation and advancement opportunities?<br>What occupation(s) will best meet my needs, interests and aspirations?<br>What training do I need and how and where do I get it?<br>How can I assess myself in terms of the occupational marketplace? |
| Supplementary Files | Over 3,000 items of career education or curriculum resources for counselors and teachers<br>Information on over 100 military jobs<br>General information on the world of work<br>State and federal financial aids information | If I am teaching a 9th grade English class and want a 30 minute filmstrip on writing resumes, what is available?<br>What military jobs are similar to a civilian job in which I'm interested?<br>What is civil service, a union, an apprenticeship? What do they mean to me?<br>What kind of financial assistance can I obtain? For what?<br>What is a loan for education? What is work-study? |


WOIS Manual System Materials
EDUCATION/TRAINING FILES
STET(s) - State Education and Training Information
COL2(s) - Two Year Colleges
COL4(s) - Four Year Colleges
GRAD(s) - Graduate Schools
OCCUPATIONAL FILES (900 titles)
SORT(s) - Short occupational description
SOCC - A reference scheme for other information
SUPPLEMENT FILES
CRES(s) - Career Education Resources for Counselors, Teachers, etc.
ASOC - Military Occupations
SUPP - Career Decision-Making Aids (i.e., what does it mean to own a business; what is an apprenticeship?)
SAID - State Financial Aids File
AIDS(s) - National Financial Aids File
OCCUPATIONAL FILE
DETAILED OCCUPATIONAL INFORMATION FILES
DESC - Occupational description, comments by workers, and method of entry
RESC - Other Resources for Additional Information (fiction, books, organizations)
OUTL - (REG1, REG2, REG3, REG5, REG7, REG8) Outlook and salary by region of state

(s) Indicates a searchable file by characteristic

[ ] Indicates a file in the printed version available in multiple copies at the user site.

Indicates files accessible by batch processing; i.e., the user fills out a questionnaire with the results mailed within 5 days.

■ Indicates files not accessible to manual version users.

The manual version of WOIS differs from the computer version in three ways: first, several information files are accessible only through a batch processing procedure; second, one file is not available in any form; and third, searching capabilities are more restrictive and more cumbersome. Nevertheless, the manual version does offer a complete system of Wisconsin Information, a sorting device which facilitates career exploration and career decision-making, and is carefully designed for both group and individual utilization. In addition, information in all but one file is available through a mail-in procedure.

In summary, the manual system offers the following features:

* A design to facilitate career decision-making
* Comprehensive Wisconsin Career information (94% of Wisconsin Seniors stay in-state following high school)
* Utilization by individuals or groups
* A tool to supplement curriculum and instructional materials
* Direct linkage to the computer version, if available at the site

1. The division of information into specific sets provides greater utility for the user as well as reducing time at the terminal. For example, a user can now get information on an outlook through cross-references without having to print out an entire job. Or, if through a search a user is confronted with five or six job titles, he/she can review them through the very concise SORT file.

2. The greatly expanded file space gives information development staff the flexibility of making additions to files without having to rearrange headers or drop some information arbitrarily in favor of something new. This is particularly useful for updating and editing. Now two or more people can work on separate files of data without tying up an entire file for hours at a time.

3. Another advantage offered by additional file space is that all of the occupational information developed can now be placed onto the computer for purposes of printing the paper version of WCIS. The last effort left a lot to be desired because some sections were computer printed while others were typed, resulting in a rather shabby looking text. Further, efforts to collate the sections produced this way (the cut and paste approach) were time consuming and were frought with errors through lack of an edit process that was sufficient to handle the various aspects of the writing, typing and cut and paste process.

These advantages are clearly related to the concerns enumerated earlier in this section. As such, they represent a response to problems identified by User Services staff from users, from Information Development staff in terms of need for additional file space and greater flexibility, and delivery systems analysts in terms of the parameters of the operating system.

To increase staff understanding of the work of others and the interrelationships of their work, it was very helpful to clearly define several processes important to the development and continuation of WCIS. These definitions follow:

> Update: A semi-annual process of checking specific types of information, (i.e., outlook projections) and changing existing data to accurately reflect current conditions. The responsibility for updating lies with a team or team member depending upon the file. Other teams need not be kept informed of the Update process as it is expected to occur and does not affect methods of use or format of content.

Review-Edit: Two separate processes carried on periodically by the information development team or the team responsible for other files and by an assigned editor. The review process is a check for accuracy of all information contained in the files which fall under the team's area of responsibility. The edit process is a check on the readability of the information. Changes must be agreed to by both parties. As is true for "Update" other teams need not be aware of the Review-Edit process as it does not affect methods of use or format of content.

Modify: Modification is required when a check of the information reveals a lack of completeness of the data in existing files and, thus the need to add new or more extensive information. The modification process is an extension of the Review-Edit process when changes to be made after review or edit effect lengtl of existing text in the system. At minimum, both the information development team, and the data processing team need to be made aware of such changes at general staff meetings; however, since they do not alter method of use or content, other teams need not be involved in deciding upon modifications.

Enhancements: The enhancement process involves adding new types of information to existing files or adding new files. An enhancement should only take place after thorough staff review and presentation to the appropriate Board Committee. Possible alternatives and resource commitments need to be laid out in advance.

Clearly defining these terms has greatly enhanced communication among staff. Additionally, these definitions help staff to understand the parameters of work to be accomplished with respect to each of the various files and to recognize when proposed activities fall into areas requiring significant decision-making. These definitions will become extremely important should the future funding plan currently in process be successful. This plan will call for review of work commitment which extends beyond the current version of the system and, thus, enhancements will clearly fall under the perogative of Board action.

In the examples which follow each file will be identified by its computer acronym. Following the name of the file, in parenthesis, will be an indication of whether the file is included or not included in the computerized (C) and/or the printed (P) versions.

SORT (C)

The SORT, or summary information file, is intended to be a computerized search file which allows users to quickly scan numerous occupations to determine those in which they might have interest. Two criterion were used in developing the content for this file: first, the description should be extremely short but convey the essential nature of the occupation; and second, the descriptions should be at a reading level no higher than sixth grade. This latter criterion allows the information to be utilized by all potential users of the system and allows a poor reader to, at least, perform an occupational search and to independently examine a number of potential occupational choices.

X X X X X X X X X X

Wisconsin State Occupational Information ready.

9
Accountant

Occupational Description:
Accountants handle the financial records of individuals, businesses, and government agencies.

For more information on this occupation, type Q SOCC P9

X X X X X X X X X X

SOCC (C)

The SOCC, or state cross reference file, is the major linking file for the entire computerized system. This file is designed to allow a user to select from an array of information the specific type of information needed. As such, this file is crucial to maximizing the usefulness and comprehensibility of the computerized version of WCIS.

X X X X X X X X X X

State Cross Reference Information ready.

9
*Attention: When you get the information you want on this occupation and want to start over on another, type: QSORT

*You have asked for information on Accountant

*The kinds of occupational information available are:
Long Description, Method of Entry, Type: Q DESC P9
Info on Outlook and Salary, Type: Q OUTL P9
For Other Sources of Info, Type: Q RESC P9
For Related National Info, Type: Q OCCU P1 P41
For Other Information, Type: Q LEAD P176P178P179

*To find out about Education & Training, follow directions in the Index using these references. For schools with:
College Degree Programs, Type: Q COL4 E652/657
First Two Years of College, Type Q STET A582
Vocational Training, Type: Q STET A410

*Similar Occupations in WOIS:
Bookkeeper, Type Q SORT P18
Statistical CLerk, Type Q SORT P27
Actuary, Type Q SORT P216

X X X X X X X X X X

MSOC (P)

The MSOC, or manual state cross reference file, is designed to facilitate use of the system by manual version-only users. The content of this file will be placed at the conclusion of each printed occupational description. As evident in the example below, MSOC directs a user to other sources of information which may be of value.

X X X X X X X X X X

Manual cross reference Information ready.

9
More information about this occupation can be found in Volume II:

For a list of schools offering correct programs, look in Wisconsin Information on Education and Training (STET, white part). Go to Section B to program number(s): 410, 1657

Related information about this occupation can be found in Wisconsin Information on Leadership, Education and Development (LEAD, green part). Go to Section B, item number(s): 176, 178, 179

If you wish to do a computer search by mail (see your WCIS coordinator). Fill out the card with the following program numbers:
For Two-Year Colleges, number(s): 582
For Four-Year Colleges, number(s): 657

If you are interested in this occupation, you might be interested in these other titles in WCIS:
Bookkeeper, No.18
Statistical Clerk, No.27
Actuary, No.216

X X X X X X X X X X

DESC (C and P)

DESC, or the state description file, is designed to provide a complete description of the occupation, information of the perceptions of workers, and information on method of entry. As such, users examining this file of information about an occupation should have a detailed grasp of the work performed in the job, of the advantages and disadvantages of the job, and of the difficulties or obstacles in gaining entry.

X X X X X X X X X X

State Occupational Description Information ready.

9

Occupational Description:
Accountants handle the financial records of individuals, businesses and government agencies. They record expenses and payments. They also keep records of purchases and sales. They keep track of how money is made and spent.

Accountants work in three major areas: public, management, and government. Public accountants work for accounting firms or are self-employed. They offer tax, audit or management services for individuals. They sometimes audit corporate records. Management accountants handle the financial records of companies, businesses or corporations. They may specialize in taxes, budgeting, or investments. Government accountants examine records of government agencies. They also inspect records of businesses and individuals which are subject to government regulation.

Accountants work for accounting firms, in the accounting departments of businesses and banks, and for government agencies such as Internal Revenue.

Accountants usually work in well-lighted business offices. Some traveling may be required.

Advantages and Disadvantages Cited by Workers:
Accountants say they like having contact with a variety of people. They also enjoy the challenge of making important decisions for their clients. They say always having to pay a great deal of attention to detail is a disadvantage of their job.

Method of Entry:
Employers generally hire college graduates who have majored in accounting. Related degrees, such as business administration, are sometimes acceptable. Some employers accept associate degrees in accounting with a few years of office experience. Knowledge of data processing and public relations skills are also helpful.

Employers advertise in newspapers and trade magazines. They may recruit qualified graduates from local colleges.

Other Titles Sometimes Used for This Occupation:
Cost Accountant, Tax Accountant, Systems Accountant
Auditor

X X X X X X X X X X

OUTL (C and P)

The OUTL, or state outlook file, provides information on advancement opportunities, salary, and outlook. Additionally, the file directs users to six other files which contain detailed outlook information on the region of the state in which they have interest. In essence, this file and the six regional files are a significant modification of the tabular material contained in the 1977-78 version which provided such difficulty for use in the field. The file also allows input of descriptive information to explain the reasons for the particular outlook on the variables which affect the salary levels indicated.

X X X X X X X X X X

State Outlook Information ready.

9

Advancement Opportunities
Junior public accountants take the Certified Public Accountant (CPA) exam to become certified and advance to senior level. They may join a partner or an accounting firm. Government accountants move to higher levels of responsibility and become supervisors. A business accountant may advance to an executive position, such as business manager or controller. Persons who wish to advance to an area of accounting generally complete the CPA exam at some time in their career.

National Salary Information $15,400 to $23,400 per year

Salaries vary with complexity of accounting system.

Salary Information in Wisconsin:
Starting Salary $9,500 to $12,000 per year

Normal Salary Range $12,000 to $25,000 + per year

Most employers offer good fringe benefits.

Overall National Outlook Good

Because of the growing complexity of business accounting requirements, college graduates will be in great demand.

General Outlook in Wisconsin:
Number Employed in 1974: 16,630
Number Expected to be Employed in 1985: 19,960
Expected Openings 1974-1985: 9,740
Current Outlook: Good job opportunities
Long Range Outlook: Current outlook will continue

A trend toward reliance on accountants by private industry and government agencies will increase job opportunities. Many companies have or will have computerized accounting records. College graduates with computer backgrounds will be in greatest demand.

More Specific Regional Information is Available.
For Information On:
Madison and Southwest, Type: Q REG1 P9
Milwaukee and Southeast, Type: Q REG2 P9
Green Bay and Northeast, Type: Q REG3 P9
La Crosse and Eau Claire Area, Type: Q REG4 P9
Wausau and North Central, Type: Q REG5 P9
Superior and Northwest, Type: Q REG6 P9

X X X X X X X X X X

REG1-6 (C and P)

The REG1-6, or regional outlook files, are actually six files describing the outlook in each of six definitive sections of the state. This geographic division is based on the administrative planning districts in the state of Wisconsin for which quality outlook

data are available. These six different regions are identified at the end of the example for the OUTL file.

It should be noted, that the regional files are not yet complete. During the coming year additional information will be developed for each of the regional files describing the areas of highest employment within each region. The example below is for region 1, the other five regional files are similar in structure.

X X X X X X X X X X

Regional Outlook Information ready.

9

Region 1 Information for Madison, Beloit, Watertown,
Platteville, Baraboo Area on Accountant

Outlook Information:

Current Outlook: Good job opportunities
Long Range Outlook: Current outlook will improve

Currently, there seems to be enough jobs for qualified applicants. In the future, it is expected that there will be a shortage of accountants in this area.

X X X X X X X X X X

RESC (C and P)

The RESC, or resources file, provides references to users to other sources of information external to WCIS which might be of interest. Standard entries include, references to the Dictionary of Occupational Titles, the Occupational Outlook Handbook, and associations and organizations.

X X X X X X X X X X

Career Resources Information ready.

9
Many other sources have information on Accountant

Dictionary of Occupational Titles:

1965 Edition: DOT Number: 160.188
Volume I, Page Number: 2
Volume II, Page Number: 252

1977 Edition: DOT Number: 160.167-010
Page Number: 191

Occupational Outlook Handbook:

Date of Edition: 1976-77
Title Used: Accountants
Page Number 123

Date of Edition: 1978-79
Title Used: Accountants
Page Number 130

Fiction or Non-fiction References:
(Fiction)
Cunningham, Virginia
A Calculating Miss
Julian Messner, 1966 (192 pp.)

Where to Write for More Information:
National Association of Accountants
919 Third Avenue
New York, NY 10022

Wisconsin Institute of Certified Public Accountants
600 East Mason Street
Milwaukee, WI 53202

X X X X X X X X X X

Other Files

Other files of information are also being developed for the 1978-79 version of WCIS. At this time, examples of these files are not yet available, however, these files include the SAID, or state aids file, the STET, or state education and training file, and the LEAD, or leadership, education and development file. The SAID and STET files will be very similar to those in the 1977-78 version. The LEAD file represents a new development for WCIS. This file contains information on many different facets which contribute to career choice and career development. For example, the file contains a listing of school organizations and associations which might be joined by a user. Where appropriate, these items of information are referenced to appropriate occupations.

A Final Comment

There are other enhancements to the 1978-79 version which have not been discussed above. Some brief mention might be made of these. First, the computerized version of the SORT and SOCC files will contain almost 800 occupational titles. This structure will allow users to search both the state occupational file and the national occupational files simultaneously. One reoccuring problem for WCIS in using the GIS system was the tendency of users to search in the national occupational file. Apparently, whether correctly or incorrectly, users believe that the larger the number of titles the better the system. Thus, WCIS decided to build a structure which would incorporate the national files from GIS without requiring extensive yearly modifications of the system based upon modifications of the GIS version. The cooperation of Time Share Corporation has been excellent in WCIS blending the two systems. Thus, WCIS users have direct access to both an extensive base of state information as well as valuable national information available through the Time Share files.

In terms of the WCIS file structure, it is important to note that WCIS users initially accessing the system will not be aware of the extensive numbers of files available. Rather, in a manner very similar to the Oregon CIS system users will be referenced to various types of information depending upon their needs. Thus, the file structure attempts to alleviate confusion of the initial user while allowing the greatest flexibility for extensive information development and inclusion of a variety of different sources and type of information.

Appendix II A contains the list of occupations which will be developed in WCIS for 1978-79. In this list those occupations numbered 1-400 are those for which state information has been developed. Overall, there are 353 state titles and approximately the same number of national titles.

D. The Validation Process

During the past nine months, staff members of WCIS have updated

and validated the occupational information portion of the system. Beginning in October, 1977, a plan to determine the accuracy of the occupational descriptions and to integrate any new material was developed. It was decided that the readability and organization of the descriptions should be improved.

The validation was conducted in three stages. During the first stage a WCIS staff member reviewed procedures from other states and then outlined a plan for Wisconsin. Several priorities were established. It was decided that each occupational description should be reviewed by people who were actively involved in the occupation under consideration. Each description was to be evaluated by an educator, an employer, and two employees. For example, number 210 veterinary lab assistant, was reviewed by an instructor in a voc-tech program, by a veterinarian who employed assistants, and by two working assistants. Each validator came from a different area of the state.

A questionnaire was developed for the validators. Each person who completed a questionnaire was asked to comment on the accuracy of the SORT and SOCC occupational descriptions and also review the Method of Entry and Advancement Opportunities sections. In addition, each validator was asked to list three advantages and three disadvantages of the occupation being reviewed.

Student workers located validators by using telephone directories and the Career Education Directory. Students contacted potential validators by telephone and then sent a copy of the description and the questionnaire to those who agreed to review the content.

When the questionnaires were returned to WCIS they were sent to the information development staff of DILHR where the staff decided which suggestions from validators should be included into the written occupational description. The questionnaires were then returned to WCIS where two writers rewrote the descriptions, including new material and deleting outdated materials. The writers also developed the advantages/disadvantages portion of the description.

This re-written copy was returned to DILHR for final approval and then re-edited in light of their comments. This edited material was then entered into the system.

The validation, completed in July, 1978, improved both the content and the readability of the descriptions. Every effort was made to keep the reading level below tenth grade without compromising the content of the description. This was done primarily by reducing the length of sentences and eliminating unnecessary technical words from some descriptions.

## III. Delivery Systems (Computer/Manual Versions)

### A. Emphasis During the 1977-78 Year

Delivery of WCIS embraces both manual and computer versions. Users having access to computer terminals also receive a manual version as a supplement for utilization with groups. As a tool, the computer version of WCIS is most appropriate for individual users. The manual version has been carefully designed for utilization by both groups and individuals.

A description of delivery system activities of WCIS must also include commentary on the computer delivery network, on methods of manual delivery, and on processes used in production of the manual and computer versions. During 1977-78, several crucial activities were undertaken by Delivery Systems staff which related to these areas. These included the implementation of WCIS at several new computer sites, the development and implementation of a printed version at over 200 sites, the transfer of the load/edit and update function from Time Share Corporation in Hanover, New Hampshire, to La Crosse, Wisconsin, and the development of plans to automate production of the manual version. Clearly, these four areas of activity are crucial to the end product delivered to users; yet, these technical activities are those most frequently underplayed in descriptions of an effective state information system. In addition, at least in Wisconsin, the success of these activities are those most influenced by cooperation of other individuals, groups, and organizations.

### B. Distribution Centers - Computer Networks

The fall version of WCIS was released in November, 1977. At that time, five computing centers had successfully operating versions of the system. These included UW-La Crosse (HP 2000F, HP 2000Access), UW-Whitewater (HP 2000F), UW-River Falls (HP 3000), UW-Madison (Univac 1110), and CESA 9, Green Bay (PDP 11/70). Two other computing centers, CESA 16, Waukesha (DEC 20), and Kenosha Public Schools (Bouroughs 5900), were attempting to implement an operating version. CESA 9 eventually installed the system successfully. However, through the year, the computer was plagued with numerous system failures, slow response time, and

various other ailments. The Kenosha Computing Center never successfully implemented WCIS; however, attempts continued throughout the year. Three new computer sites were successfully implemented. These were Milwaukee Public Schools (PDP 11/70), VTAE - La Crosse (DEC 20), and UW-Superior (PDP 11/70). In addition, WCIS was successfully implemented at Madison Public Schools (Honeywell 6600) for use in Fall, 1978. Work was also initiated on implementation of WCIS at CESA 12, Portage (IBM 370/125).

Thus, as of June 1978, WCIS was implemented and was running successfully at 10 computer sites. The problems which plagued CESA 16 throughout the year have now been resolved. Assuming the work currently ongoing at Kenosha and Portage is successful, WCIS anticipates delivery at 12 computer centers in Fall 1978. The variety of different machines is staggering and certainly taxes the abilities of the Delivery Systems staff to maintain good performance. Nevertheless, the delivery network set up by WCIS allows access to all potential users throughout the state at the most reasonable cost possible.

At the 'business' end of computer delivery, most users have adopted 30 cps terminals. Ninety percent currently use either a DecWriter or ARA 43. Between 1976-77 and 1977-78, this use of 30 cps terminals represents a major change. In 1976-77, approximately ninety percent of WCIS users reported access to the system through old teletype machines, a 10 cps unit. This change appeared to be the result of two joint influences. First, WCIS is obviously a more effective tool when a user site has access to a 30 cps termonal. Second, the Wisconsin Telephone Company, apparently wishing to eliminate the old teletype machines from the field, instituted a $500 installation cost for these terminals at the beginning of the year. Thus, efficiency plus cost resulted in a massive change in the types of equipment used in the field.

C. Manual Delivery

The 1977-78 printed version of WCIS was constructed through a painstaking cut and paste operation using both computer output and typed material. The resulting product, while the best possible at the time, had many obvious deficiencies. The example of the 1977-78 version in Section II illustrated some of these difficulties. First, all the information was in capital letters which made fast reading almost impossible.

Second, the production process required that page numbers in the printed version be different from the occupational numbers on the page. This difficulty required use of an index in order to locate a desired occupation, a painstaking process for most users. Finally, the cross reference scheme was imbedded in the information; thus, it was extremely difficult to use with printed material.

The work done during the current year has modified the system in such a manner as to alleviate most of these concerns. The transfer of the system to La Crosse (discussed below), has allowed use of small and capital letters in input of the information. This new input format combined with plans to use automated typesetting for the occupational information should produce a product easy to use and very readable. While the STET, LEAD, and SAID files will still be produced through a cut and paste process, the availability of small and capital letters and careful use of various press type headers will allow a much more readable and useable product.

D. Load, Edit, Update Function

At the beginning of the 1977-78 project year, plans were implemented to move the load, edit and update functions from the computer in Hanover, New Hampshire to the computer at UW-La Crosse in Wisconsin. Although accomplished belatedly, the spring update for WCIS was eventually delivered from La Crosse to all operating computing centers in Wisconsin. The difficulties in transferring this process from Hanover to La Crosse were frequent and time consuming. At this point, however, UW-La Crosse has successfully delivered updated materials to all computing centers. Additionally, La Crosse has been able to build all files required for the new WCIS version to be released in 1978-79. This process was also quite time consuming; however, the rewards for the future are numerous. WCIS now has local control of its file development within the parameters of the GIS delivery program.

In summary, the transfer of the load, edit and update programs from Hanover to La Crosse was accomplished with great difficulty but is expected to bring large rewards in future development and successful implementation of WCIS statewide.

## IV. User Services

### A. Emphasis During 1977-78

At the beginning of 1977-78, WCIS user services staff anticipated placing greatest emphasis on marketing activities. It was believed that the largest task in permanently establishing an information system network would be in substantially increasing the number of users particularly during the third project year. Fortunately, WCIS obtained the regional support from 12 'community service assistants' funded under CETA, Title IV. This massive addition to user services staff allowed emphasis on inservice training as well as marketing.

The equal and substantial emphasis on both marketing and inservice is evidenced in several ways. First, over 2,000 on-site and/or regional inservice training or marketing meetings were held. These were divided approximately equally between marketing efforts and inservice activities. Second, the number of user sites increased approximately threefold from the end of the 1976-77 project year. Third, actual use of the system also increased more than threefold from that reported at the end of 1976-77. Overall, WCIS exceeded all inservice and marketing goals for the project year.

### B. Product

#### 1977-78 Version

Appendix 4A contains a sample of some WOIS products. However, much of the material used with WOIS is formatted in a manner which makes inclusion in this report impossible. Actual copies of such products are available through the DCIS offices in Washington. A list of products used with WCIS during 1977-78 follows:

WCIS Computer Index

WCIS Computer Questionnaire (newsprint)

WCIS Commands Poster

WCIS Selectors (newsprint)

WCIS Posters

WCIS Scan Instruction Guide (newsprint)

WCIS Scan Worksheet

WCIS Scan Booklet

WCIS Volume I (occupational information)

WCIS Volume II (other information)

Based upon informal comments from users, the most useable and best-liked of these products were the Computer Index and the Computer Questionnaire. The materials least-liked were the printed volumes of information, Volume I and Volume II. The biggest disatisfaction with this material was in terms of the format of the content and the process required to utilize it. Most deficiencies in the material have been alleviated in planning for the 1978-79 version.

1978-79 Version

The majority of text in the information development section was devoted to explaining and illustrating the 1978-79 version of WCIS. Although this emphasis is on a version not yet delivered to users, it does reflect the work activities of information develcpment staff for most of the project year. In contrast, during the project year, user services staff worked primarily with the current version of the system and did not begin development of new materials until the beginning of the new project year. Thus, although initial plans have been laid for the 1978-79 user materials and products, these are not yet available in final form. Presently, only cosmetic changes are planned to the products enumerated earlier. Some additional products are also planned for development. These include a filmstrip to enhance motivation for using WCIS materials, and a mail search kit to allow manual-only users access to certain national information.

C. Marketing

The table on the next page better illustrates the marketing effort of WCIS staff during the 1977-78 year than any lengthy description of

A Comparison of Marketing Results 1976-77 and 1977-78 and Degree of Successfulness of Achieving the Final Project Goals*

| Type of User Group | Number of Groups Served | | | Average Number Potential Users** | | Total Number of Potential Users | | | % of 1979 Project Goal of Number to be Servd. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1976-77 | 1977-78 | % increase | 1976-77 | 1977-78 | 1976-77 | 1977-78 | % increase | 1976-77 | 1977-78 |
| High School, Junior High School Students | 69 | 183 | 165% | 959 | 734 | 66,185 | 134,273 | 92% | 31% | 59% |
| Post-secondary Vocational Students | 4 | 60 | 1400% | 612 | 1,040 | 2,450 | 62,400 | 2440% | 4% | 97% |
| 4-yr. University/ College Students | 1 | 8 | 700% | 340 | 150 | 340 | 1,200 | 253% | 9% | 32% |
| Center System Campus Students | 1 | 2 | 200% | 550 | 450 | 550 | 900 | 64% | 9% | 14% |
| CETA/CAP Clients | 2 | 33 | 1550% | 55 | 200 | 110 | 6,600 | 5900% | 1% | 27% |
| WIN/Job Service Clients | 0 | 64 | --- | -- | 50 | -- | 4,096 | --- | 0% | 24.7% |
| DVR Clients | 1 | 4 | 300% | 300 | 300 | 300 | 1,200 | 300% | 43% | 171% |
| Others | 22 | 15 | 650% | 100 | 100 | 200 | 1,500 | 650% | -- | --- |
| TOTALS | 80 | 369 | 361% | | | 70,145 | 212,169 | 202% | 19% | 57% |

*Final Goals are taken from WOIS Grant Application, 1975 - Note: Some Groups on p. 88 of Proposal are combined in this report

**Estimates

specific activities. As mentioned earlier, approximately 1,000 on-site or regional marketing meetings were held by WCIS staff or community service assistants throughout the state. The results reported in the chart reflect upon this level of effort. Overall, the number of user sites increased almost fourfold between 1976-77 and the end of 1977-78.

The increase in number of sites was satisfactory for each type of installation and reflect the intensity of effort exerted by staff during the year. Post-secondary vocational sites, CETA/CAP agency sites, and WIN/Job Service Office sites reflect agreements between WCIS and the lead agencies for these groups to treat their participation as a consortium effort. The largest marketing effort was exerted with high school and junior high school sites. The increase within this category reflects that level of intensive effort; the number of high school sites increased 114 during the past year. While increases in college and Center System sites were not great, these sites were not emphasized in the marketing effort. However, during the latter part of the year a consortium arrangement was being worked out with the Center System campuses; thus, almost full coverage with this group should be achieved by the early part of 1978-79. The four-year university and college sites are also considering a consortium approach to membership with WCIS. However, current projections are to begin such an arrangement in the 1979-80 biennium years.

Perhaps the only significant disappointment in the marketing effort of WCIS during the year was with the Department of Vocational Rehabilitation. While a great deal of interest in WCIS has been generated at the local level of DVR offices, WCIS staff have been unable to obtain a consortium committment from from the state DVR people. Additionally, the people at the state level have blocked attempts of several local offices to obtain services. At this time, efforts are still underway to work with the state level people; however, prospects for success in the near future do not appear promising.

Appendix 4B contains samples of several materials utilized by WCIS in marketing during the year. Perhaps the most successful mailing initiative was the return questionnaire included with the financial aids newspaper distributed to all high school seniors in the state. This project, carried out in cooperation with the Higher Education Aids Board,

resulted in over 80 schools returning the self-addressed, stamped questionnaire requesting an on-site demonstration of WCIS materials. Another major effort at obtaining new user sites was the promotional "half fee" and "quarter fee" offered after January 1, 1978 and April 1, 1978. These price reductions, offered following board approval, resulted in a significant increase in new user sites. It is anticipated that the majority of these sites will continue during the 1978-79 year at the full user fee.

The successfulness of the financial aids newsprint and the price reduction effort has led to the expectation that they will be utilized again during 1978-79.

D. Price

The fee structure for WCIS services is a fairly simple one. Users are assessed a fee based upon the "potential number of users" having access to WCIS services at a site. A potential user is defined as a client/student who would be in a position to utilize the services and who might need them. For example, the fee for a university counseling center is assessed based on the number of "vocational or career counseling clients" the site sees per year; a high school fee is based upon the number of students enrolled.

The formula which is utilized to assess the fee follows:

User fee = \$0.45 X (the number of students/clients up to 1,000)
+ \$0.225 X (the number of students/clients over 1,000).

Application of this fee structure resulted in collection of over \$33,000 in user fees during 1977-78.

The fee structure is applied to all user sites with the exception of those covered under a consortium arrangement with WCIS. During 1977-78 three such groups were covered: CETA/CAP agencies, VTAE institutions, and Job Service/WIN offices.

The user fee or consortium agreement covers "all materials necessary to operate WCIS successfully". As such, users need not worry about hidden charges for worksheets, booklets, or other materials which are not covered under the fee. Sites interested in obtaining computer services must contract independently with one of the WCIS Distribution Centers.

Costs for computing services vary widely depending upon the Distribution Center selected, the distance of the Distribution Center from the user site, and the amount of time needed. Taking into consideration these variables, costs range from $500 to $4,000 per year per site.

E. Inservice Training

Regional or on-site inservice was held on approximately 1,000 occassions during the 1977-78 project year by either WCIS staff or community service assistants. The range of inservices by site varied from one regional inservice and one on-site inservice to one regional inservice and five on-site inservices. Generally, most sites received one regional inservice and from two to three on-site inservices.

The successfulness of inservice is best indicated by study of Section V, Evaluation. Use of WCIS increased markedly during the project year seeming to indicate that the inservice efforts of staff were successful.

Appendix 4C contains a short summary report on the User Conference held by WCIS during late March to obtain feedback on the system from users throughout the state. This meeting provided useful input to staff on needs at different types of user sites. It also provided evidence of the need for better planning of inservice training; an effort which should be reflected in the 1978-79 inservice training materials and plans.

## V. Evaluation

A variety of evaluation activities during the 1977-78 project year yielded a wealth of interesting and useful information regarding WOIS. Among these activities were 1) monitoring of WOIS use by computer and user site reports, 2) assessing users' reactions to WOIS, and 3) re-assessing Board involvement in the development and direction of WOIS. The results are discussed in the following report.

### A. Survey of WOIS Board of Directors

A survey of board members was conducted during the May 16, 1978 meeting of the WOIS Board of Directors. The survey was designed to assess members' perceptions of the nature and extent of their involvement in the development and direction of WOIS.

The results of the Board survey, including written comments made by the members, are presented on the next five pages. Items 10-12 and 14 indicate that members view the bimonthly meetings as productive, with relevant items on the agenda. All responding members stated they had ample opportunities to make significant contributions to the WOIS meetings.

Items 1-8 indicate a positive level of involvement in WOIS by the Board along several dimensions. As can be seen in Table 1, the mean ratings of involvement on items 1-7 are all higher than mean ratings obtained in June, 1976 when the board was asked the same series of questions. In 1978 there was a statistically significant increase in the members' ratings of their efforts to 1) keep WOIS staff informed of new developments in the educational spectrum which might have implications for WOIS, 2) keep WOIS staff informed of new developments in the labor market which might affect WOIS, and 3) provide input into the long-range planning and policymaking for WOIS.

Table 1

Results of the Survey of the WOIS Board of Directors

| Item | 1978 Mean | 1976 Mean | Difference | t |
|---|---|---|---|---|
| 1. Assuring inter-agency cooperation | 5.73 | 5.06 | .67 | 1.63 |
| 2. Keeping staff informed of new educational developments | 5.60 | 4.73 | .87 | 1.94* |
| 3. Keeping staff informed of new labor market developments. | 5.31 | 4.40 | .91 | 2.39* |
| 4. Staffing and direction of WOIS personnel | 4.81 | 4.67 | .14 | .20 |
| 5. Overall development of WOIS | 5.56 | 5.46 | .10 | .25 |
| 6. Input into budgetary matters | 5.88 | 5.47 | .41 | .78 |
| 7. Imput into long-range planning and policymaking | 6.06 | 5.28 | .78 | 2.29* |
| 8. Personal contribution to development of WOIS | 4.31 | 4.50 | -.19 | -.83 |

*p<.05

Results of May 16, 1978

## WOIS BOARD OF DIRECTORS SURVEY

**This survey is designed to measure the Board's effectiveness and overall involvement in the development and direction of WOIS. Please respond to each question by circling the number which best indicates your perception or opinion.** N=16

| | | $\bar{X}$ |
|---|---|---|
| 1. | How would you describe the Board's involvement in assuring interagency cooperation among the agencies interested in the development of WOIS? | 5.73 |
| | Very Significant 7 6 5 4 3 2 1 Very Insignificant | |
| 2. | How would you describe the Board's efforts in keeping WOIS staff informed of new developments in the educational spectrum (e.g., counseling, career education, etc.) which might have implications for WOIS? | 5.60 |
| | Very Significant 7 6 5 4 3 2 1 Very Insignificant | |
| 3. | How would you describe the Board's efforts in keeping WOIS staff informed of new developments in the labor market which might affect WOIS? | 5.31 |
| | Very Significant 7 6 5 4 3 2 1 Very Insignificant | |
| 4. | How would you describe the Board's involvement in staffing and direction of WOIS personnel? | 4.81 |
| | Very Significant 7 6 5 4 3 2 1 Very Insignificant | |
| 5. | How would you describe the Board's involvement in overall development of WOIS to date? | 5.56 |
| | Very Significant 7 6 5 4 3 2 1 Very Insignificant | |
| 6. | How would you describe the Board's input into budgetary matters of WOIS? | 5.88 |
| | Very Significant 7 6 5 4 3 2 1 Very Insignificant | |
| 7. | How would you describe the Board's input into the long-range planning and policy making for WOIS? | 6.06 |
| | Very Significant 7 6 5 4 3 2 1 Very Insignificant | |
| 8. | How would you describe your own personal contribution to the development of WOIS as a Board member? | 4.31 |
| | Very Significant 7 6 5 4 3 2 1 Very Insignificant | |

Please check (✓) your response to the following items.

9. Are all agencies with significant potential for contribution to the development of WOIS represented on the Board?

(1) 14 Yes (2) 2 No (If no, please explain)

10. Were items on the agenda of the WOIS Board meetings important and relevant to the project?

(1) 6 Yes, always
(2) 10 Yes, usually
(3) 0 Only in a few cases
(4) 0 No, never

11. Was sufficient time devoted to the most important items on the agenda?

(1) 8 Yes, always
(2) 8 Yes, usually
(3) 0 Only in a few cases
(4) 0 No, never

12. Did the agenda cover your principal concerns about the project?

(1) 4 Yes, always
(2) 11 Yes, usually
(3) 1 Only in a few cases
(4) 0 No, never

13. Did you have ample opportunity to make significant contributions to the meetings?

(1) 16 Yes
(2) 0 No (if no, please explain)

14. How would you rate the overall productivity of the WOIS Board meetings?

(1) 7 Very productive
(2) 9 Moderately productive
(3) 0 Slightly productive
(4) 0 Unproductive

15. What suggestions do you have for increasing the effectiveness and efficiency of the Board?

16. What information would you and the agency or institution you represent find most desirable and useful in an evaluation of WOIS? (Please be specific)

_____
Name of Respondent

Thanks for your cooperation.

9. Explanations of No answers.

Need more community and business/labor representation rather than academic/governmental representation

(Andrea E. Graff)

Almost every agency, including political parties, could make significant contributions--but they cannot all be on a board.

(H.J. Jackson)

15. What suggestions do you have for increasing the effectiveness and efficiency of the Board?

More staff assistance in putting together present board policies.

(Al Thurner)

Continue to involve board members in planning and other action phases of the WOIS operation in so far as possible.

(Thomas H. Hooker)

Provide a general in-service program for the board. I feel that several people, myself included, know a lot a language but need to have it interpreted.

(J. Bruce Bradley)

Less staff reporting--more chance for board input.

(Van Raalte)

Continue quality meetings--use phone conferences.

(Ellen Meister)

Continue to seek out persons with sufficient interest in the project to be willing and able to provide assistance and leadership to the project.

(John C. Storlie)

Impressed with staff preparation and interest in work though feel more practical, direct input about occupations from actual trade practitioners and employers would help, like direction WOIS is taking beyond system use just in schools.

(Andrea E. Graff)

Hold meetings quarterly or less.

(Jill Feder for Dick Johnston)

16. What information would you and the agency or institution you represent find most desirable and useful in an evaluation of WOIS? (Please be specific)

Users No. for an individual district. Milw. Public Schools.
(Al Thurner)

Which group or targets and what percentage of the total are served. What % of potential users at different sites are being served.
(Harvey Sokolow)

The extent of relevant occupational information housed in the WOIS system and how it continues to expand.
(Thomas H. Hooker)

A detailed job description for the WOIS staff person in our office, as well as a clean statement regarding who he is responsible to for reporting, supervision, and etc.
(J. Bruce Bradley)

The high school level which I am a part of uses the system very much. The COC4 and COC2 files get the most use.
(Paul G. May)

How do high schools become involved with WOIS? Is the involvement with WOIS a crucial need in the local high school?
(Van Raalte)

A model to be used locally to evaluate the WOIS project and generate data/report for the Board of Education, principal, etc. i.e. a recommended system to complete a local evaluation and generate a report to be used locally.
(Ellen Meister)

Interviews with students.
(H.J. Jackson)

Continuation of data currently being collected to provide comparison in time. Limited in-depth information on users' reaction to system--what files most useful, etc.
(Ellen Hansen)

See #15 & #9 responses--Impressed with staff preparation and interest in work though feel more practical, direct input about occupations from actual trade practitioners and employers would help, like direction WOIS is taking beyond system use just in schools/Need more community and business/labor representation rather than academic/governmental representation. Please understand my responses carry a community service bias of a non-institutional nature.
(Andrea E. Graff)

B. Usage of WOIS

During 1977-78, a high priority of evaluation was to obtain accurate information regarding use of WOIS on a site by site basis and for the state as a whole. To accomplish this, a user report system was designed and implemented last fall. While the reporting procedure had its weak points, at the time it was the best means available for obtaining usage data on a continuing, cumulative basis for all user sites.

Procedure

Reporting local site usage was the responsibility of each site coordinator. Both verbal and written instructions regarding the procedure were provided by user services specialists and community service assistants during regional inservice programs and on-site visits.

Basically the reporting procedure was as follows:

1. At the end of each month, coordinators were sent a post-paid card. The card asked for a summary of use of WOIS at the local site during the month. Space was provided on the card for indicating the number of users and total minutes of use for the computer and manual delivery systems. Any individual who accessed information in WOIS on one occasion was defined as user for purposes of data collection. Space was also provided on the card for brief-written comments or messages which the coordinator might wish to relay to the WOIS staff. Cards were to be completed and returned on the last school or working day of the month or as soon afterward as possible.

2. Along with each monthly report card, coordinators were sent logs (sign-up sheets) for WOIS which could be used during the coming month (designated on the form). Both computer and manual delivery system logs were provided to sites as appropriate. The logs provided a place for users to record their WOIS use so that the coordinator could transfer information from the log sheets to the summary post card which would arrive at the end of the month.

3. The reporting procedure was followed for seven months--from the time the fall update and manual version were made available at regional inservice programs through the end of the school year in May.

4. User services specialists and community service assistants conducted a monthly follow-up of sites which did not return a report card.

A cumulative record of use was maintained at the Center, and this data was periodically shared with WOIS staff and members of the Board of Directors. This record helped user services staff to identify exemplary user sites as well as sites showing minimal usage and needing additional user services assistance.

Results

Numbers of users during 1977-78 are reported by major user group and delivery system Table 2. Since not all sites returned all monthly report cards, these use figures are conservative. The totals are based on the following rates of return of user report cards: 101 K-12 computer sites, 73% of the total number of possible monthly reports were returned; 163 K-12 manual sites, 72%; 6 VTAE computer sites, 64%; 45 VTAE manual sites, 45%; 58 Job Service sites, 60%; 9 other computer sites, 78%; 35 other manual sites, 77%. User numbers also do not reflect usage at some sites which occurred prior to the fall, 1977 update and/or after the end of the 1977-78 school year.

Table 2

Number of Users Reported by Sites for November, 1977 Through May, 1978

| WOIS User Group | Computer | Manual | Combined |
|---|---|---|---|
| Elementary and Secondary Schools | 23,519 | 14,894 | 38,413 |
| VTAE Campuses | 125 | 427 | 552 |
| Job Service Offices | a | 469 | 469 |
| Other Sites | 819 | 597 | 1,416 |
| TOTAL | 24,463 | 16,387 | 40,850 |

[a] Computer delivery system not available at Job Service offices.

An estimated total of 9,238 users was reported during 1976-77, the first operational year of WOIS. Thus, during its second operational year, WOIS served more than 4.4 times the number of users that it served in 1976-77. This sizeable increase in use can be attributed to three developments: 1) a substantial increase in use of the computer delivery system at second year sites, 2) introduction of the manual delivery system; and 3) a substantial increase in the number of WOIS user sites.

As the figures in Table 2 reveal, most use of WOIS (94%) was reported by elementary and secondary school sites. Many of these sites were second year users already familiar with WOIS. WOIS staff anticipated increased use of WOIS at second year elementary and secondary school sites as staff and students became more aware of WOIS and more comfortable with its operation. The larger portion (61%) of use reported by elementary and secondary school sites was for the computer delivery system.

The VTAE campuses, Job Service offices, and most "other" category sites were first year user sites during 1977-78. The very low level of usage at these sites can be attributed to, at least in part, a smaller number of potential users, later delivery of materials and inservice programs, and lack of any previous experience with the system.

The pattern of growth in WOIS use over a two year period at 15 high school sites was closely studied by staff. The 15 high schools in the sample were: Arrowhead Union (Hartland), Delavan, Ellsworth, Hayward, Lincoln (Manitowoc), Luxemburg-Casco, Madison East, Oconomowoc, Oregon, Preble (Green Bay), Sheboygan Falls, Southwest (Green Bay), Spring Valley, Tomah, and Tomahawk. The sites selected met two criteria: 1) baseline data on use of WOIS at each site was available for 1976-77, and 2) all monthly report cards were returned during 1977-78. The schools are vaired in size (enrollments range from 300 to 2438), geographic location, community characteristics and career education involvement. Reported use at these sites varied considerably, from practically none to most of the enrollment.

In February, 1978 staff had made projections of use at this 15 school sample based upon partial year reports. WOIS projected in its third quarterly report that 48.2% of the enrollment would have used WOIS by the end of the school year.

Total 1977-78 use came within 0.4% of the mid-year projection. As can be seen in Table 3, total WOIS use at the sample sites increased substantially during the two year period. Computer use nearly doubled during the second year. Introduction of the manual system in 1977-78 accounted for many additional users to bring the total at these sites to almost 50% of the student enrollment - more than 2 1/2 times the number of users reported at these sites in 1976-77. It should be noted that the percentages reported in Table 3 represent enrollment equivalents. This is because the user totals include instances of multiple uses by a single individual.

Table 3

Use of WOIS at a Sample of 15 High School Sites

| | 1976-77 | | 1977-78 | |
|---|---|---|---|---|
| Delivery System | No. of Users | % of Enrollment | No. of Users | % of Enrollment |
| Computer | 3117 | 18.7% | 5538 | 32.9% |
| Manual | a | | 2634 | 15.7% |
| Combined | | | 8172 | 48.6% |

[a] No manual delivery system available in 1976-77

Similar to the trend for K-12 user sites as a whole, use of the computer delivery system ran well ahead of that of the manual delivery system at the 15 schools.

Local coordinators were usually very cooperative in providing monthly reports of numbers of WOIS users. However, many coordinators commented that it was difficult for them to accurately report the amount of time WOIS was used. Some coordinators reported numbers of users but left spaces for length of use blank. Others noted that their reports of time were unreliable. Consequently, these data could not be tabulated as a reliable index of WOIS use.

Coordinators often wrote comments in the space provided on their monthly report cards. These comments included descriptions of how the system was being used at the local site as well as problems encountered in using the system. Comments received through February were included in the third quarterly report. Comments received during March, April, and May appear in Appendix 5A of this report.

C. Computer Logs of WOIS Use

Computers at the WOIS distribution centers at the University of Wisconsin-La Crosse, University of Wisconsin-River Falls, and University of Wisconsin-Whitewater maintained records of computerized WOIS use. Each distribution center uses a somewhat different recording procedure, and these variations prevent readily compiling the data from each into one index of computerized WOIS use. The data presented in this section of the report provide a picture of the range of usage at local user sites. Computer logged data also reveal information on the extent of use of the various information files.

Univeristy of Wisconsin-La Crosse

The UW-La Crosse Computer Center maintains a record of the number of WOIS sessions and hours or use for sites it serves. Table 4 reports these figures for the 1977-78 academic year at 17 sites. Use of the computer delivery system at these sites varied considerably from just a couple hours to several hundred hours over the 9 month period. The site mean in approximately 86 hours. The mean for the 13 full year users is 104 hours. Number of sessions indicated the number of times the WOIS program was accessed through the local site terminal. One session is the period of time which occurs between logging on and logging off the computer. One or any number of individuals may have used WOIS during a single session.

University of Wisconsin-Whitewater

The UW-Whitewater Computer Center provides monthly reports of the number of WOIS files accessed for each site it serves. Table 5 reports these figures for the 1977-78 academic year at 10 sites. The range is great, with a mean of 603 file accesses per site during the year. It should be noted that the number of file accesses should not be equated with number of users since one individual at one WOIS session might access a single file, several different files, and/or a particular file several times. It is also possible that in some instances two or more users may have obtained information from WOIS during a single file access.

Table 4

WOIS Use at 17 Sites Logged By UW-LaCrosse Computer

(September, 1977 to May, 1978)

| SITE | Number of Hours | Number of Sessions |
|---|---|---|
| Belleville H.S. | 27.60 | 37 |
| Black River Falls H.S. | 33.46 | 164 |
| Fall Creek H.S. | 80.94 | 141 |
| +Janesville Craig H.S. | 1.63 | 6 |
| Janesville Parker H.S. | 156.84 | 613 |
| LaCresent H.S. | 70.98 | 266 |
| LaCrosse Central H.S. | 78.66 | 440 |
| LaCrosse Logan H.S. | 35.20 | 237 |
| Merrill H.S. | 6.17 | 38 |
| Oregon H.S. | 227.52 | 488 |
| Royal H.S. (Elroy) | 25.06 | 48 |
| +Sparta H.S. | 72.68 | 329 |
| Tomah H.S. | 108.48 | 412 |
| Tomahawk H.S. | 375.66 | 851 |
| U.W.-Fox Valley | 125.30 | 268 |
| +Viterbo College | 19.23 | 19 |
| ++Whitehall H.S. | 14.58 | 69 |
| TOTAL | 1459.99 | 4426 |

+ Not a user in September
++ Not a user September through February

Table 5

WOIS Use At 10 Sites Logged By UW-Whitewater Computer
(Reported By Site For 9 Month Period
From September, 1977 to May, 1978)

| SITE | TOTAL NUMBER OF FILE ACCESSES |
|---|---|
| +Blackhawk Tech. Inst. | 13 |
| Deerfield H.S. | 112 |
| Delevan H.S. | 1207 |
| Fort Atkinson H.S. | 1142 |
| Johnson Creek H.S. | 787 |
| ++Lancaster H.S. | 786 |
| ++Palmyra H.S. | 626 |
| Watertown H.S. | 289 |
| Whitewater H.S. | 971 |
| Williams Bay H.S. | 94 |
| TOTAL | 6027 |

+ Not a user in September
++ Not a user September through January

Information on individual file use is also reported by the UW-Whitewater computer. Table 6 provides data on the total number of accesses by file for the 10 sites listed in Table 5. The State Occupational Information (SOCC) file was most frequently accessed (28% of the total number of file accesses were for SOCC). The 4 Year College (COL4) file, the State Education and Training (STET) file, and the Sort file also logged substantial use. These three files plus the SOCC file account for 78% of the total number of file accesses. The 2 Year Colleges (COL2) file, Graduate School (GRAD) file, Financial Aids (AIDS) file, and Armed Services Occupations (ASOC) file received relatively little use during the year and together account for only 3% of the total number of file accesses.

Table 6

WOIS Use At 10 Sites Logged By UW-Whitewater Computer
(Reported By File For 9 Month Period
From September, 1977 to May, 1978)

| FILE | NUMBER OF ACCESSES |
|---|---|
| SORT | 883 |
| SOCC | 1666 |
| STET | 938 |
| COL2 | 48 |
| COL4 | 1212 |
| GRAD | 73 |
| SAID | 173 |
| AIDS | 52 |
| CRES | 494 |
| NOCC | 481 |
| ASOC | 7 |
| TOTAL | 6027 |

University of Wisconsin-River Falls

The UW-River Falls Computer Center reports the number of file accesses for each site it serves. In addition, it reports the number of minutes that files are accessed. Table 7 presents these figures for 42 sites during the 1977-78 academic year. Use during the two week period from October 15-30, 1977 is not included in these totals due to an accidental erasure of the data which occurred.

The UW-River Falls computer also reports usage by file. The data in Table 8 illustrate the frequency and length of use of WOIS files. These data are reported for the period from October 31, 1977, when the fall update and new files were made available to user sites, to the end of the academic year. Similar to records from UW-Whitewater, the State

Occupational Information (SOCC) file was by far the most frequently accessed file, being accessed almost twice as often as the 4 Year Colleges (COL4) file - the second most often used file. The State Education and Training (STET) file and National Occupational Information (NOCC) file also received a substantial amount of use. Comparatively little use was made of the two financial aids files (SAID and AIDS), the Armed Services Occupations (ASOC) file, and the 2 Year Colleges (COL2) and Graudate School (GRAD) files.

In Table 9, all computer files are ranked according to number of file accesses reported at each distribution center. The degree of correlation between the two sets of rankings is high (Spearman's rho = .81).

Table 7
WOIS Use At 42 Sites Logged By UW-River Falls Computer
(September 1, 1977 to May 30, 1978[a])

| SITE | Number of File Accesses | Number of Minutes Accessed |
|---|---|---|
| Amery H.S. | 73 | 529 |
| +Ashland H.S. | 55 | 301 |
| Baldwin-Woodville H.S. | 222 | 1015 |
| +Bayfield H.S. | 397 | 1272 |
| Birchwood H.S. | 129 | 514 |
| Bloomer H.S. | 479 | 3346 |
| Cadott H.S. | 277 | 1400 |
| Chetek H.S. | 445 | 2511 |
| ++Chippewa H.S. | 75 | 749 |
| Clear Lake H.S. | 141 | 1024 |
| +Colby H.S. | 259 | 1205 |
| Cumberland H.S. | 136 | 916 |
| Drummond H.S. | 535 | 2341 |
| Elcho H.S. | 501 | 2720 |
| Ellsworth H.S. | 72 | 538 |
| Lac du Flambeau Elementary | 473 | 2075 |
| Glenwood City H.S. | 112 | 602 |
| Hayward H.S. | 122 | 468 |
| Ladysmith H.S. | 183 | 910 |
| Lake Holcombe H.S. | 203 | 997 |
| +Luck H.S. | 13 | 151 |
| Mellen H.S. | 389 | 1496 |
| ++Menomonie H.S. | 6 | 18 |
| Mercer H.S. | 471 | 2408 |
| Mount Senario College | 24 | 174 |
| Mondovi H.S. | 43 | 299 |
| +Neillville H.S. | 836 | 3046 |
| New Auburn H.S. | 112 | 878 |
| New Richmond H.S. | 260 | 1649 |
| Nicolet Tech. Institute | 198 | 1082 |
| North Lakeland Elementary | 415 | 2962 |
| +Northland Pines H.S. (Eagle River) | 351 | 1952 |
| +Northwood H.S. (Minong) | 21 | 149 |
| +Osseo-Fairchild H.S. | 990 | 3014 |
| +Phelps H.S. | 107 | 657 |

Table 7 (continued)

| | | |
|---|---|---|
| Rhinelander H.S. | 202 | 1901 |
| River Falls H.S. | 45 | 410 |
| +Shell Lake H.S. | 425 | 1639 |
| Somerset H.S. | 16 | 182 |
| Spring Valley H.S. | 68 | 605 |
| West CAP | 56 | 380 |
| Wis. Indianhead Tech. Inst. | 182 | 1577 |
| TOTAL | 10,119 | 52,062 |

[a] No logs of use for October 15-30, 1977.
+ Partial year WOIS user.
++ Dropped WOIS during year

Table 8

WOIS File Use At 42 Sites Logged By UW-River Falls Computer

(October 31, 1977 To May 30, 1978)

| File | Number of Accesses | Number of Minutes | Minutes per Access |
|---|---|---|---|
| SORT | 945 | 5140 | 5.44 |
| SOCC | 2802 | 14929 | 5.33 |
| STET | 1236 | 4794 | 3.88 |
| COL2 | 211 | 1212 | 5.74 |
| COL4 | 1415 | 10144 | 7.17 |
| GRAD | 182 | 1111 | 6.10 |
| SAID | 95 | 769 | 8.09 |
| AIDS | 127 | 1556 | 12.25 |
| CRES | 802 | 1385 | 1.73 |
| NOCC | 1379 | 5255 | 3.81 |
| ASOC | 171 | 1021 | 5.97 |
| TOTAL | 9365 | 47,316 | |
| | | (790.3 hrs.) | |

Table 9

WOIS Files Ranked According To Number Of File Accesses

| File | UW-River Falls Rank | UW-Whitewater Rank |
|---|---|---|
| SORT | 5 | 4 |
| SOCC | 1 | 1 |
| STET | 4 | 3 |
| COL2 | 7 | 10 |
| COL4 | 2 | 2 |
| GRAD | 8 | 8 |
| SAID | 11 | 7 |
| AIDS | 10 | 9 |
| CRES | 6 | 5 |
| NOCC | 3 | 6 |
| ASOC | 9 | 11 |

D. User Reactions To WOIS

In addition to assessing numbers of WOIS users at user sites, project staff implemented a qualitative evaluation of the system by users. Since data on the number of users indicated that principal usage of WOIS occured at the high school sites during 1977-78, high school users were the primary focus of the evaluation.

Instrumentation

A "User Reaction Sheet" was developed by project staff for the evaluation. Some of the questions were adapted from the instrument used in the 1976-77 NOIS impact evaluation. Several items were included as a means of exploring possible impacts of WOIS upon users. All the questions address important questions and concerns staff have regarding reactions of WOIS users. At the advice of local coordinators from numerous high schools, the questionnaire was limited in length to 1-2 pages.

The questions were field tested at McFarland High School, which had contacted WOIS for assistance in conducting a local evaluation of WOIS student users. Students found that completing the reaction form could be a short and interesting learning experience which encouraged them to reflect upon their use of WOIS and the career information obtained from it.

Evaluation Sites

Five high schools participated in the evaluation. All five had previously served as sites for the 1975-76 NOIS impact evaluation. At the time of their selection for the NOIS evaluation, they had agreed to participate in a similar evaluation during 1977-78.

Three high schools, Green Bay East, Kimberly, and Oregon were second year WOIS user sites during 1977-78. Port Washington and Wauwatosa West served as control sites during the NOIS evaluation and were first year users during 1977-78. Wauwatosa West students only had use of the manual (printed) WOIS. Students at the other four high schools had access to both computer and manual delivery systems.

The sites included both four year and three year (senior) high schools. the Schools were varied in size, geographic location, community characteristics, and involvement in career education.

Several sites serving post secondary and non-student users were included in the original evaluation design, but an insufficient number of completed reaction forms were returned for analysis.

## Procedure

An adequate supply of User Reaction Sheets and a letter were mailed to each site coordinator in late April. The letter provided instructions to the coordinators regarding completion of the reaction sheets. All student users of WOIS during the month of May were requested to complete a reaction form immediately after interacting with the system. A sign reminding students to complete the questionnaire after using WOIS was provided for each site to display in close proximity to WOIS.

Completed forms were returned to WOIS by each coordinator at the end of May.

Results were tabulated by the Wisconsin Survey Research Laboratory, University of Wisconsin-Madison. Means and standard deviations, in addition to percentages were calculated for items with scaled responses.

## Results

A total of 192 completed reaction sheets were returned for analysis. All questions and results, including students' comments on WOIS, are reported on the next two pages.

Respondents' characteristics are detailed in questions 15 - 17. While the two sexes were fairly equally represented in the sample, the greatest number of respondents (75%) were in the 10th and 11th grades. The sample included relatively few seniors and only three freshmen. More than half (52%) of the sample indicated that they planned to attend a post secondary educational institution following high school. The majority of these students, 32% of the total sample, planned to attend a college or university, while 20% planned to attend a vocational technical school.

The results, as a whole, were very favorable. Among the many observations which can be made regarding the data are the following:

Structured Search (Question 2): 73% conducted some sort of structured search by identifying their interests, abilities, educational preferences and/or other characteristics in order to obtain a list of occupations or schools which matched those choices.

File Use (Question 3): Most students (87%) obtained information from the State Occupations Information (SOCC) file. The SORT file, State Education and Training (STET) file, 4 Year Colleges (COL4) file, and National Occupational Information (NOCC) file received a moderate amount of usage; approximately one fifth of the sample had used each. Very few students obtained information from the financial aids (SAID and AIDS) and Graduate Schools (GRAD) files.

Ease of Use (Questions 6 and 7): 64% rated WOIS as easy to learn to use; only 6% reported that learning to use WOIS was difficult. An even greater number (84%) rated the information they obtained as easy to read and understand.

Impacts on Students (Questions 8-12 and 14): 70% or more described the information they received from WOIS as: 1) relevant to their current career information needs, 2) increasing their awareness of different occupations, 3) helpful in relating occupations to personal characteristics such as interests, abilities, and educational preferences, and 4) helpful in making career decisions.

Better than 9 out of 10 students indicated they were more able to seek out and use occupational information on their own as a result of their experience with WOIS. 22% said they were "definitely" more able.

One third of the students expanded the number of occupations they were interested in as a result of using WOIS. Another 31% narrowed the number of occupations they were interested in, while 27% made no changes.

Overall Reactions (Question 13): 80% described their overall experience as either "favorable" or "very favorable." Only 7% had unfavorable reactions.

Comments: Thirty-seven students (19%) wrote comments, and virtually all of them were positive and tended to emphasize the helpfulness of the system in career awareness, exploration, and/or planning activities. A summary of their comments appears on the following pages.

## RESULTS - MAY, 1978

(Reported in percentages, N=192)

Wisconsin Occupational Information System (WOIS)

User Reaction Sheet

1. Which version(s) of WOIS did you use?

(1) 75.0 Computerized WOIS (2) 62.0 Printed WOIS materials (3) 17.7 SCAN Sheets

2. Did you identify your interests, abilities, educational preferences, and/or other personal characteristics in order to obtain a list of occupations or schools from WOIS which matched your choices?

(1) 73.4 Yes (2) 24.5 No

3. Which WOIS files did you obtain information from?

(1) 21.4 SORT file
(2) 86.5 State Occupations (SOCC)
(3) 21.4 State Education & Training (STET)
(4) 6.3 2 Year Colleges (COL2)
(5) 18.8 4 Year Colleges (COL4)
(6) 2.6 Graduate schools (GRAD)
(7) 1.6 General Financial Aids Information (SAID)
(8) 1.6 Specific Financial Aids (AIDS)
(9) 6.8 Career Resources (CRES)
(10) 18.8 National Occupations (NOCC)

4. How much time did you spend on WOIS today?

(1) 28.1 Less than 10 minutes (2) 37.5 10-30 minutes (3) 32.8 more than 30 minutes

5. Have you used WOIS before?

(1) 30.7 Yes (2) 68.8 No

6-11 Circle the number which best indicates your response to each question.

6. How easy/difficult was it to learn to use WOIS?

| Very Difficult | 1 | 2 | 3 | 4 | 5 | Very Easy | $\bar{X}$ = 3.95 | SD = 1.00 |
|---|---|---|---|---|---|---|---|---|
| | 1.6 | 4.2 | 29.7 | 26.0 | 38.0 | | | |

7. How easy/difficult was it to read and understand the information in WOIS?

| Very Difficult | 1 | 2 | 3 | 4 | 5 | Very Easy | $\bar{X}$ = 4.32 | SD = .92 |
|---|---|---|---|---|---|---|---|---|
| | .5 | 6.3 | 8.9 | 29.2 | 55.2 | | | |

8. How relevant was the information you received from WOIS to your current career information needs?

| Not Relevant | 1 | 2 | 3 | 4 | 5 | Very Relevant | $\bar{X}$ = 4.05 | SD = 1.17 |
|---|---|---|---|---|---|---|---|---|
| | 5.2 | 5.2 | 18.8 | 20.8 | 50.0 | | | |

9. How helpful was the information you received from WOIS in making career decisions?

| Not Helpful | 1 | 2 | 3 | 4 | 5 | Very Helpful | $\bar{X}$ = 3.97 | SD = 1.24 |
|---|---|---|---|---|---|---|---|---|
| | 7.3 | 6.3 | 15.1 | 24.0 | 46.9 | | | |

10. How much did WOIS increase your awareness of different occupations?

| Not at all | 1 | 2 | 3 | 4 | 5 | A lot | $\bar{X}$ = 3.97 | SD = 1.16 |
|---|---|---|---|---|---|---|---|---|
| | 4.7 | 8.3 | 15.1 | 28.6 | 43.2 | | | |

11. How much did WOIS help you relate occupations to personal characteristics such as your interests, abilities, and educational preferences?

| Not at all | 1 | 2 | 3 | 4 | 5 | A lot | $\bar{X}$ = 3.94 | SD = 1.18 |
|---|---|---|---|---|---|---|---|---|
| | 5.7 | 7.3 | 16.7 | 28.1 | 42.2 | | | |

12. Do you think you are more able to seek out and use occupational information on your own as a result of your experience with WOIS? $\bar{X}$ = 1.86 SD = .57

(1) 22.4 Definitely (2) 69.8 To some extent (3) 5.7 No noticeable improvement (4) 1.6 Definitely not

13. How would you describe your overall experience with the Wisconsin Occupational Information System?

(1) 4.2 Very unfavorable (2) 2.6 Unfavorable (3) 12.5 Undecided (4) 50.0 Favorable (5) 30.2 Very favorable

$\bar{X}$ = 4.00 SD = .96



OVER PLEASE

14. As a result of using HOIS, I have:

(1) 30.7 Narrowed down the number of occupations I'm interested in

(2) 32.8 Expanded the number of occupations I'm interested in

(3) 26.6 Made no changes in the occupation(s) I'm interested in

15. Grade you are presently enrolled in:

1.6 9th  34.4 10th  40.1 11th  15.1 12th

16. Sex: (1) 42.2 Male  (2) 46.4 Female

17. Present career plans following high school: (Check one)

(1) 12.5 Begin a full-time job

(2) 3.6 Begin an apprenticeship or on-the-job training program

(3) 19.8 Attend a vocational-training school

(4) 32.3 Attend a college or university

(5) 11.5 No plans at this time

(6) 3.6 Other (please specify) _____

18. Comments:

19.3 % wrote comments. See summary sheet.

Thank you. Your response will be a big help to HOIS staff.

## Student User Comments on WOIS

This WOIS helped me to make up my mind between two choices, singing or secretarial and now I found a way to do both.

Decent!!

I like the system very much.

I like the program. This program helped me out to some extent, but I'm sure it will help alot of other people too. So I really like it and it's quite helpful.

The computer was very helpful to me.

The computer is very helpful.

It's a good idea.

It interested me in more occupations, but my plans aren't changed.

I just think it's great.

It's a pretty decent system.

The people who do research for the system, should do more research, to be more accurate.

I really feel that it is a great, and helpful computer.

I found it helpful.

The WOIS is a good and useful system.

I found the computer to be very helpful. I am grateful for its services.

The computer is great for this kind of information. I really like to work with it.

It is a helpful thing. I've made some changes in the occupations I'm interested in because of it.

I am going to farm, and I work on farms in the summer months, and I thought I knew it all but when I looked at the books I found alot that I didn't know at all.

This book helped me in my field but there could have been more information.

I think that this WOIS program has helped me to note the types of jobs that I would be good at.

It made me aware of the different jobs that I could branch out into.

The WOIS was very helpful in finding out the career I'm interested in, and helping me with my written report.

Before I took it, I was pretty well decided on what I was looking for, but I had an open mind and was given other interesting ideas.

Everything that I used for my English class helped a lot.

You have to go to too much extent to find out if numbers match. I did learn alot more about what I wanted to learn.

NONE. Well materials could go into more detail about the job.

Complete information obtained.

I thought the reference I found was O.K. but I didn't find much on my career.

Just fine.

I have to know alot more about the WOIS system, for I still don't know much.

It was very easy to use the system and also easy to find information in the books and on the tapes.

The books helped out alot, cause my career wasn't in any other book.

I knew what information I wanted and looked it up.

I think that the time I spent with the WOIS was worth my while.

Loved it! I wish I would have had more time to work on it though. It helped me out quite a bit in finding out about various occupations.

I <u>really</u> like the program. It's worth alot to <u>me</u>.

It helped me a great deal.

VI. WOIS FINANCIAL INFORMATION REPORT

Fiscal Year Ending June 30, 1978

| Budget Items | Expenditures and Source of Funds | | | | | | State and Federal Totals Expenditures To Date | Encumbered To Date | |
|---|---|---|---|---|---|---|---|---|---|
| | Federal H905 | K336 | K754 | K746** | J434*** | State Total | | H905 | K746 |
| Salaries and Wages | | | | | | | | | |
| Managerial & Professional | 48,987.70 | 3,021.51 | 20,862.57 | 24,550.96 | 18,541.24 | 66,976.28 | 115,963.98 | 0 | 0 |
| Clerical | 27,448.28 | 879.83 | 0 | 0 | 4,570.69 | 5,450.52 | 32,898.80 | 0 | 0 |
| Total | 76,435.98 | 3,901.34 | 20,862.57 | 24,550.96 | 23,111.93 | 72,426.80 | 148,862.78 | 0 | 0 |
| Fringe Benefits | 13,392.89 | 616.48 | 3,901.30 | 4,218.97 | 4,550.19 | 13,286.94 | 26,679.83 | 0 | 0 |
| Total Personnel Expense | 89,828.87 | 4,517.82 | 24,763.87 | 28,769.93 | 27,662.12 | 85,713.74 | 175,542.61 | 0 | 0 |
| Direct Costs | | | | | | | | | |
| Travel Expense | 14,401.89 | .16 | 181.97 | 711.50 | 915.34 | 1,808.97 | 16,210.86 | 39.16 | 0 |
| Equipment | 0 | 5,070.00 | 0 | 0 | 1,786.00 | 6,856.00 | 6,856.00 | 0 | 0 |
| Supplies | 4,679.31 | 0 | 0 | 3,598.36 | 44.32 | 3,642.68 | 8,321.99 | 2510.80 | 2023.88 |
| Other-Supplies-Services | 61,341.83 | 1,682.05 | 0 | 0 | 476.43 | 2,158.48 | 63,500.31 | 719.06 | 0 |
| Computer Processing Costs | 25,791.39 | 0 | 0 | 0 | 2,160.00 | 2,160.00 | 27,951.39 | 18,078.69 | 0 |
| Total Direct Costs | 106,214.42 | 6,752.21 | 181.97 | 4,309.86 | 5,382.09 | 16,626.13 | 122,840.55 | 21,347.71 | 2023.88 |
| Indirect Costs | | | | | | | | | |
| Overhead | 15,307.71 | 901.58 | 1,960.85 | 2,608.82 | 2,643.52 | 8,114.77 | 23,422.48 | 1,707.82 | 161.91 |
| Total Indirect Costs | | | | | | | | | |
| T O T A L | 211,351.00 | 12,171.61 | 26,906.69 | 35,688.61 | 35,687.73 | 110454.64 | 321,805.64 | 23,055.53 | 2185.79 |

*Total H905 Expenditures + Encumbrances for 1977-78 Fiscal Year $234,406.53

**Total K746 Expenditures + Encumbrances for 1977-78 Fiscal Year $ 37,874.40

***Total J434 Expenditures for 1976-77 and 1977-78 Fiscal Years $70,559.02



Total Expenditures and Encumbrances
Fiscal 1977-78: $347,046.96

Exhibit A-1

OMB Approval No. 29-R0224

# FINANCIAL STATUS REPORT

1. Federal Agency and Organizational Element: Department of Labor - NOIS

2. Federal Grant No. or Other Identifying No.: T 30A-76-100

Name and Address of Grantee Organization:
Govenors Manpower Office
Sub Grantee: University of WI-Madison
Wisconsin Vocational Studies Center

4. Employer Identification No.: IRS ID #39-6006992W

5. Grantee Account No. or Identifying No.: H905

6. Final Report: ☐ Yes ☒ No

7. Basis of Report: ☐ Cash ☒ Accrued Expenditures

8. Project Period (Month, Day, Year): FROM 7 | 14 | 77 TO 7 | 13 | 78

9. Report Period (Month, Day, Year): FROM 4 | 1 | 77 TO 6 | 30 | 78

| STATUS OF FUNDS — PROGRAMS — FUNCTIONS — ACTIVITIES | 23.3% | 53.5% | 9.0% | | 2.8% | 5.7% | |
|---|---|---|---|---|---|---|---|
| | (1) Info. Dev. | (2) User Serv. | (3) Gen. Mgmt. | (4) Eval 5.7% | (5) WI Cort. | (6) Delivery | TOTAL |
| Total outlays previously reported | 146102.12 | 335470.55 | 56434.30 | 35741.72 | 17557.34 | 35741.72 | 627,047.75 |
| Total program outlays this period | 31491.00 | 72307.65 | 12163.90 | 7703.81 | 3784.33 | 7703.81 | 135,154.50 |
| Less: Program income credits | - - | - - | - - | - - | - - | - - | - - |
| Net program outlays this period | 3149.00 | 72307.65 | 12163.90 | 7703.81 | 3784.33 | 7703.81 | 135,154.50 |
| Total program outlays to date | 177593.12 | 407778.20 | 68598.20 | 43445.53 | 21341.67 | 43445.53 | 762,202.25 |
| Less: Non-Federal share of program outlays | 63680.98 | 146220.27 | 24597.81 | 15578.61 | 7652.65 | 15578.61 | 273,308.93 |
| Total Federal share of program outlays | 113912.14 | 261557.93 | 44000.39 | 27866.92 | 13689.02 | 27866.92 | 488,893.32 |
| Total unpaid obligations | 5881.23 | 13504.11 | 2271.72 | 1438.75 | 706.76 | 1438.75 | 25,241.32 |
| Less: Non-Federal share of unpaid obligations | 509.29 | 1169.40 | 196.72 | 124.59 | 61.20 | 124.59 | 2,185.79 |
| Federal share of unpaid obligations | 5371.94 | 12334.71 | 2075.00 | 1314.16 | 645.56 | 1314.16 | 23,055.53 |
| Total Federal share of outlays and unpaid obligations | 119,284.08 | 273,892.64 | 46075.39 | 29181.08 | 14334.58 | 29181.08 | 511,948.85 |
| Total Federal funds authorized | 122,120.66 | 280,405.81 | 47171.07 | 29875.01 | 14675.44 | 29875.01 | 524,123.00 |
| Unobligated balance of Federal funds | 2836.58 | 6513.17 | 1095.68 | 693.93 | 340.86 | 693.93 | 12,174.15 |

Indirect Expense: a. Type of rate (mark one)
☐ Provisional ☐ Final
☒ Predetermined ☐ Fixed

a. Rate: 8%

b. Base: 474,026.71

c. Total amount: 27922.14

d. Federal share: 37,922.14

12. REMARKS (Attach additional sheets if necessary)

13. CERTIFICATION — I certify that to the best of my knowledge and belief this report is correct and complete and that all outlays and unpaid obligations are for the purposes set forth in the grant award documents.

Name and Title: Roger Lambert/Dir. WCIS

Telephone: Area Code 608 | Number 263 | Ext. 2704

Signature of Authorized Official: Roger Lambert

Date Report is Submitted: Sept 28 1978

Financial Status Report

Quarterly Financial Information Report
Quarter Ending June 30, 1978

Exhibit D-4

Wisconsin
(State)

| Budget Items | | Sources of Funds | | |
|---|---|---|---|---|
| | H905 Federal | J434,K336,K754, State K746 | Other* | Total |
| **Salaries and Wages** | | | | |
| Managerial & Professional | 16,062.11 | 15,170.52 | 27,475.00 | 58,707.63 |
| Clerical | 9,496.71 | 0 | 0 | 9,496.71 |
| Total | 25,558.82 | 15,170.52 | 27,475.00 | 68,204.34 |
| Fringe Benefits | 4,887.19 | 2,711.97 | 4,313.00 | 11,912.16 |
| Total Personnel Expense | 30,446.01 | 17,882.49 | 31,788.00 | 80,116.50 |
| **Direct Costs** | | | | |
| Travel expense | 5,706.62 | 841.22 | 6,500.00 | 13,047.84 |
| Supplies | 411.80 | 3,358.65 | 0 | 3,770.45 |
| Equipment | 0 | 5,070.00 | 0 | 5,070.00 |
| Computer processing costs | 6,330.63 | 0 | 0 | 6,330.63 |
| Other-Supplies-Services | 16,197.01 | 1,145.52 | 0 | 17,342.53 |
| Total Direct Costs | 28,646.06 | 10,415.39 | 6,500.00 | 45,561.45 |
| **Indirect Costs** | | | | |
| Overhead | 4,400.31 | 2,191.49 | 2,884.75 | 9,476.55 |
| Total Indirect Costs | | | | |
| Total | 63,492.38 | 30,489.37 | 41,172.75 | 135,154.50 |

* - user fees, sales of materials, etc.

Appendix I A

Minutes of Board Meetings

WISCONSIN OCCUPATIONAL INFORMATION SYSTEM

Minutes of Board of Directors Meeting

September 20, 1977

Union South - Room 115a

Board Members Present: Chuck Hackner, Terry Willkom, Jill Feder for Dick Johnston, Richard Sawicki, Jay Kallenbach for Tom Hooker, Lorran Celley, Jim Jackson, Harvey Sokolow for Andy Cohn, John STorlie, Al Thurner, Ellen Meister, Donald Jacobson, Paul Speight for Robert Van Raalte, Donald Erdjenovich, Andrea Graff, Ludwig Peterson, Donald G. Jones, Paul May, Gary Spagnoletti.

WOIS Staff Present: Roger Lambert, Mary O'Connor, Lois Radtke, Darcy Mellen-Sullivan, Jim Augustine, Dean Wiseman, Dave Caulum, Carl Grady, Dave Miller.

1. The meeting was called to order at 9:45.

2. Roll call was taken. Board members and staff were introduced.

3. Adoption of agenda.

4. Dave Caulum presented the WOIS system to the board members. A review of the new manual system as well as an explanation of modifications in the computerized program was given by WOIS staff members.

5. Minutes of the meeting on April 19, 1977 were approved as written.

6. Director's Report (Roger Lambert)
   A. A summary of the budget for this fiscal year was presented. Funding, as explained, comes from several agencies and from user fees. Presently, all has been funded and is set for this year. Gross $558,000.
   B. Each member received a copy of the 1977 WOIS project report for review.
   C. CETA PSE Project. This project is designed to employ persons throughout the state to assist in increasing student utilization of the system as well as to aid school counselors in program familiarization. The program, which supports the User Services staff, involves 10 assistants and one secretary.
   D. DCIS staff and visit. The National Occupational Information Services has changed its title to the Division of Career Information Services. A new program officer visited the Center during the summer to become familiar with the center and to offer suggestions.
   E. David Miller, WOIS staff member, will resign, effective Thursday, September 22, 1977. He has accepted a teaching position with the University of Nevada-Las Vegas. Staffing of WOIS will possibly then be restructured as a maintenance operation as opposed to a development operation.

7. Request for Distribution Center (Dave Caulum). The UW-Superior has requested status as a Distribution Center for 1977-1978, in order to improve service to the northern portion of the state. The WOIS staff recommended the inclusion of Superior as a center. Motion was made by Lorran Ceeley to approve the center, with a second by Jack Storlie. Motion carried.

8. Contract approval of Regional Centers - Roger Lambert.
A motion was made by Al Thurner and seconded by Donald Mrdjenovich to approve the 6 existing centers and the new Superior contract. Motion carried.

9. "Leased Materials Policy" - Roger Lambert.
To ensure that schools, etc. will update their materials and information regularly, the following statement (to be attached to all printed materials), was adopted. "All WOIS materials are leased to the user agency for the term of the membership contract. These materials remain the property of the WOIS Consortium Board and must be returned should membership be discontinued." A motion for approval was made by John Storlie, and seconded by Jay Kollenbach. Motion carried.

10. A user fee policy for partial year service was presented for adoption. For a first time user who begins after January 1, the fee will be 50% of the full year assessment. Pro-rating or staff negotiation will determine rates for those starting after April 15. Motion for approval was made by John Storlie, seconded by D. Mrdjenovich. Motion carried.

11. WOIS Coordinating Committee - Roger Lambert
A state Occupational Information Coordinating Committee (WOICC) has been organized to coordinate Occupational Information in the state. "The WOIS Board formally requests that the Wisconsin Occupational Information Coordinating Committee (WOICC) recognize and formally endorse the Wisconsin Occupational Information System (WOIS) as the primary delivery system for Career and Vocational Guidance Information in the state of Wisconsin." A motion was made by Gary Spagnoletti to approve the request and seconded by Lorran Ceeley. Motion carried.

12. Election
By unanimous ballot, Ellen Hanson was elected chairperson for the new year. John STorlie was nominated and elected by unanimous ballot as vice-chairperson.

13. The following dates were approved for future meetings of the Board: November 15, 1977; January 17, 1978; March 21, 1978; May 16, 1978.

14. Committee appointments were discussed. Members indicated their interest in committee assignments. Additional members will be assigned by Chairperson Ellen Hanson.

    A. Fee and Finance:
    B. Board policies and constitution: T. Hooker
    C. Program enhancement: L. Ceeley, G. Spagnoletti, P. May, C. Hackner
    D. Long-range planning: D. Mrdjenovich, C. Hackner, J. Jackson
    E. User Group Special Problems: A. Graff, D. Jones.

15. Adjournment

WISCONSIN OCCUPATIONAL INFORMATION SYSTEM

Minutes of Board of Directors Meeting

November 22, 1977

Union South - Room 302a

Board Members Present: Lorran Rathert for Terry Willkom, Jill Feder for Dick Johnston, Richard Sawicki, Pete Van Ness for Tom Hooker, Doyle Beyl for Lorran Celley, August Cibarich for Jim Jackson, Gene Craven, Harvey Sokolow, John Storlie, Al Thurner, Ellen Hansen, Ellen Meister, Donald Jacobson, Bob De Huth for Robert Van Raalte, Donald Mrdjenovich, Ludwig Peterson, Paul May.

WOIS Staff Present: Roger Lambert, Mary O'Connor, Lois Radtke, Darcy Mellen-Sullivan, David Caulum, Carl Grady, Dean Wiseman.

1. The meeting was called to order at 10:30 a.m. following committee meetings.

2. Roll call was taken.

3. Following an addition to the agenda (item 8b), it was adopted.

4. Minutes of the meeting on September 20 were approved as written.

5. Director's Report (Roger Lambert)

   A. Review of 1st quarterly activity report (summary of the start of the third fiscal year.)
   B. New User Groups were indicated as being CESA 12, Milwaukee Public Schools (3 of 15 have been in-serviced thus far), Kenosha Public Schools, Job Service/WIN, VTAE campuses and other smaller groups.
   C. The status of WOIS Implementation/In-service can be seen in the Question/Answer report developed for Gov. Schreiber, page 2. In regard to marketing, WOIS, in cooperation with HEAB, sent a Financial Aids newsletter to all seniors throughout the state. Response has led to requests for 50 demonstrations of the manual version of WOIS and 30 demonstrations of the computer version.
   D. Currently in progress is a plan to move the load edit/update from Time Share in Hanover New Hampshire to UW-La Crosse. Time Share is preparing tapes for distribution to LaCrosse, aiming for a December 1st delivery. Hanover would still back-up the system until January for the next up-date.

   E. The Division of Career Information Services (formerly the National Occupational Information Service) visited WOIS and cited certain concerns for the system. The WOIS response was discussed.

F. A formal structured validation process for Occupational information is being implemented to insure accurate information. The steps include: (1) Development of content by DILHR; (2) Editing and review by WOIS for grammar and reading level; (3) DILHR review of editing; (4) Entering of data by WOIS; (5) Final DILHR review; (6) Validation by an outside panel; (7) Repeal of above steps as necessary.

G. WOICC requested a demonstration of WOIS operation which was given on Wednesday, November 16th.

H. Recent visitors to WOIS included representatives from Vermont and Florida to view the Wisconsin operation set-up and to review agency cooperation. The AVA convention presentation to state directors will be held in Atlantic City New Jersey on December 2-7th.
AFL-CIO biannual meeting of building trade apprenticeship has requested a WOIS demonstration. This will take place in January.

5. Report of Subcommittees

A. Long Range Plan - Roger Lambert
Funding, location of the system and the role of WOIS are concerns of the committee. A paper outlining role parameters has been prepared by the WOIS staff.

B. Fee and Finance - John Storlie
Preliminary figures were cited for an estimated budget for 1978-79. Committee information may lead to an increase in the 45¢ basic fee as well as of the minimum fee per site.

C. Program Enhancement - Lois Radtke
No formal developments for further enhancement has taken place as validation of existing programs must occur first. The committee discussed SOCC file expansion; SAID file inclusion of information on financial aids sources in the state; CRES file addition of Job Service offices; STET file addition of four-year schools; Grad file writing of Wisconsin's own regional file as opposed to a national file; addition of a community resources file; addition of a programs file.

D. Board Policies - Al Thurner
A review of the present policy will take place before any modifications will be made. A review of the constitution will also be made for conflicts with this policy.

E. User Group Special Problems - Donald Mrdjenovich
Problems discussed are reading level determinations of the manual system, CESA 16 hardware problems, closed vs. open contracts and guidelines for liability protection, location of terminals at individual sites (development of guidelines for new and existing users).

6. CESA 12 request for special distribution center status.

An agreement has been reached to put the manual system in CESA 12 schools and allow them to use WOIS file information in their CVIS program. THey will not be able to share WOIS materials with other CVIS users. A motion to approve the contract as a developmental/special user site was made by Ludwig Peterson and seconded by August Cibarich. Motion passed.

7. No agreement has been reached regarding 1978-79 user fees.

8. A. The current contract year for WOIS service to schools and agencies is September 1 to August 31. It has not been possible to provide updates and in-service due to the schedule of Time Share. A motion was made to change contract dates to November 1 through October 31 by Al Thurner and seconded by Ludwig Petersen. Motion passed.

   B. Youth Employment and Demonstration Project Act.
   A summary of objectives by Merle Bodine, WBVTAE, indicating objectives and how dollars are spent was issued, and the objectives for Governor's 5% projects were disseminated. Discussion concerned how this could be utilized for WOIS in Wisconsin.

9. Chairpersons for Board committees should contact the Center office to schedule further meetings. It was suggested that committee meetings be held in conjunction with Board meetings.

   Future meeting dates are: Tuesday, January 17, 1978; Tuesday, March 21, 1978; and Tuesday, May 16, 1978.

10. Adjournment.

# WOIS Board of Directors Meeting

## AGENDA

Tuesday, January 17, 1978

Committee meetings begin at 9:00 a.m. Board meeting begins at 10:00 a.m.

Note: Meeting Location - Conference Rooms A & B, Wisconsin Board VTAE
Hill Farms State Office Building, 7th floor
4802 Sheboygan Ave., Madison
Parking available in Visitor Lot immediately West of building

8:45 Coffee and Rolls

9:00 to 10:00 Committee Meetings

1. Fee and Finance - Conference Room B (Room 711)
   A. Recommend User fees for 1978-79

2. Long Range Plan - Conference Room A (Board Room)
   A. Review long range plan materials sent to members
   B. Discuss long range plans

10:00 to 11:30 WOIS Board Meeting - Conference Room A

1. Roll call
2. Introduction of Guests
3. Adoption of Agenda
4. Approval of Minutes of November 22nd meeting
5. Director's Report
   - Report of Director's conference in Washington, D.C.
   - User numbers and status
   - DPI - proposal for serving high schools
   - Evaluation and validation progress report
   - WOICC liaison report
   - Update at La Crosse
   - AFL-CIO, Career Ed user services and other conferences
   - Program changes planned for 1978-79

6. Committee Reports

   - Fee and Finance Committee report
   - Long Range Plan Committee report

7. Establishment of User Fees for 1978-79

8. Board Members questions and comments

9. Future meeting dates:

   - Tuesday, March 21, 1978
   - Tuesday, May 16, 1978

10. Adjournment

11:30 to 12:15 — Committee Meetings

1. User Services Special Problems - Conference Room B
2. Board Policies - Conference Room A
3. Program Enhancement - Conference Room A

1:00 to 3:00 — Special meeting with WOIS Computer Distribution Center Directors/ Representatives and WOIS staff - Conference Room B (WOIS Board members are welcome to attend).

1. Program changes for 1978-79
2. Marketing strategies
3. Computer charges for 1978-79
4. February update
5. Distribution Center problems and concerns
6. Special problems of potential Distribution Centers

# WISCONSIN OCCUPATIONAL INFORMATION SYSTEM

## Minutes of Board of Directors Meeting

March 21, 1978

Hill Farms State Office Building - 7th floor

Board Members present: Jill Feder for Dick Johnston, Richard Sawicki, Lorran Celley, Jim Jackson, John Storlie, Al Thurner, Ellen Hansen, Ellen Meister, Robert Van Raalte, Bruce Bradley for Ludwig Petersen, Dave Thomas for Carol Tank, Harvey Sokolow

WOIS Staff present: Roger Lambert, Carl Grady, Dave Caulum, Jim Augustin

Guests present: Mike Condit, Mary Thompson, Diane Hutchinson

1. The meeting was called to order at 10:30 a.m. following committee meetings.

2. Roll call was taken.

3. Following an addition to the agenda (item 5b), it was adopted.

4. Minutes of the meeting on January 17th were approved.

5. Director's report (Roger Lambert)

   A. Dave Caulum reported 305 user sites of WOIS, both computer and manual version. An increase in user sites is anticipated through the year's end. Each site has been in-serviced as needed, a minimum of one time.
   B. Jim Augustin reported on evaluation, indicating 16,800 users reported for four months of this user year. This is an 82% increase over seven months last year. Of a detailed 15 high school sites for 1977-78, the user equivalent thus far is 27.5%; 48% is projected.
   Dave Caulum presented an update on evaluation of occupations. Of 1600 questionnaires sent, there has been an 80% return. Comments from these questionnaires will be incorporated into occupation descriptions.
   C. Carl Grady reported on the update program at La Crosse, indicating that both national and state files are being programmed.
   D. A brief description of the DCIS meeting for information development was given by Carl Grady. Several members of the WOIS staff are attending the APGA meeting in Washington this week.
   E. The Department of Labor request for matching funds must be documented. A $365,000 budget is projected for 1978-79.

5. Distribution Center requests were presented for both Western Wisconsin Technical Institute (La Crosse) and Madison Public Schools. A motion was made by Lorran Celley and seconded by Jim Jackson to approve the request for a limited center at La Crosse. Motion carried. A motion was made by Robert Van Raalte and seconded by John Storlie to approve the request for an open center at Madison Public Schools. Motion carried.

6. Board Policy Committee - Al Thurner

   Committee will review staff recommendation and present report to the Board.

7. Long Range Plan Committee - J. Jackson

   Plans include attempting to obtain general purpose revenue funding from the state, so all potential users could have the system available.

8. The future of WOIS as an independent organization continues to be discussed, as federal funding will terminate after the fourth year.

9. Future meeting date:

   -Tuesday, May 16, 1978, Hill Farms State Office Building
   Discussion will relate to budgeting, schedule of meetings for 78-79.

10. Adjournment.

# Wisconsin Occupational Information System
## Board of Directors' Meeting
## Minutes

May 16, 1978
Hill Farms State Office Bldg., 4802 Sheboygan Ave.
7th Floor Conference Room A (WBVTAE Board Room)

Members present: Richard Sawicki, Tom Hooker, Lorran Celley, Jim Jackson, John Storlie, Al Thurner, Ellen Hansen, Robert Van Raalte, Andrea Graff, Bruce Bradley for Ludwig Peterson, Paul May, Carol Tank, Harvey Sokolow, Ellen Meister.

WOIS staff present: Dean Wiseman, Darcy Mellen-Sullivan, Jim Augustin, Lois Voigt, Dave Caulum, Roger Lambert.

1. The meeting was called to order by Chairperson, Ellen Hansen.

2. Roll call was taken.

3. The agenda was adopted and minutes of the March 21 meeting were approved.

4. Director's Report:

   A. Roger Lambert - Highlighted major changes in latest quarterly report, citing sample occupational files for fall.
   B. Dave Caulum - Reported an additional 36 user sites since the last meeting, bringing the total to 341. This includes 12new high school sites.
   C. Dave Caulum - Summer activities include an emphasis on possible University sites for WOIS, completion of information development, and preparation of user materials for fall delivery.
   D. Dave Caulum - The status of the LaCrosse fall update/load-edit finds all files operational and data entry one-third complete. Plans are to finish in mid-July.
   E. Dave Caulum - With Center and PSE staff, 700 on-site visits per quarter are accomplished. A general mailing to 498 University sites for possible WOIS installation will acquaint the University with WOIS. Dean Wiseman is preparing a brochure for libraries in the state, as potential WOIS sites. Plans for information development include implementation of WOIS into additional school programs (e.g.,English as well as Guidance). A LEAD file is being developed to provide information on how to get a job and where to go after you have that information.
   F. Dave Caulum - Of 359 occupations being validated, there are only 8 remaining to be completed.
   Jim Augustin - Users have doubled since the last meeting. In the past two months, 31,000 students have used systems. This represents 3 1/3 times last year's total. In sample schools, 40% enrollment has used systems.

5. Discussion was held regarding changing WOIS to WCIS (Wisconsin Career Information System) with the next update. New information would be incorporated with a new logo. A motion was made by Ellen Meister to adopt the name change; seconded by John Storlie. Motion carried.

6. Fee and Finance Committee - John Storlie

The proposed budget for 1978-79 was $648,419.00. A motion was made by Andrea Graff to approve the budget; seconded by Bruce Bradley. Motion carried.

7. Long Range Plan Committee - Roger Lambert

Financing for the 79-81 biennium was discussed. A planning document was distributed. Continued study will be directed at getting the major agencies to agree to the planning document.

8. By unanimous ballot, Ellen Meister was elected Chairperson for 1978-79. Richard Sawicki was elected Vice-chairperson.

9. A motion was made by Robert Van Raalte and seconded by Dick Sawicki to adopt the suggested meeting dates for 1978-79. They will be: Tuesday, September 19, 1978; Tuesday, November 21, 1978; Tuesday, January 16, 1979; Tuesday, March 20, 1979; Tuesday, May 15, 1979.

10. Discussion was held on replacement of Don Mrdjenovich and William Wilberg on the WOIS board. Members are to contact Roger Lambert with any suggestions.

11. A motion was made by Andrea Graff for adjournment; seconded by J. Storlie.

Appendix I B

# Wisconsin Occupational Information System

Budget Planning Document for
Fiscal years
1979-80
and
1980-81

Prepared by:

Roger Lambert
Director WOIS
321 Education Building
UW-Madison
Madison WI 53706
608/263-2704

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1979-80 Biennium


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## WOIS Operational Budget Plan for 1979-80 and 1980-81

The following represents the proposed operational budget plan for continuing the Wisconsin Occupational Information System in the 1979-80 and 1980-81 fiscal years (next biennium). All direct Federal (DOL) support will end on July 13, 1979, therefore it is essential that if WOIS is to continue, a mechanism must be established to provide support for WOIS services beyond that time.

Briefly, the plan for this support encompasses the following key points:

(1) Statewide dissemination and service for the WOIS program would be established through the cooperative involvement of the major state educational agencies. - DPI, UW System and VTAE system - All high schools, junior high schools, University sites, and VTAE campuses would have WOIS services.

(2) State GPR proportioned to the 3 agencies would be the major support for the consortium operation at the state level. (Consortium operation includes: Information development, dissemination, maintenance, Manual System, and User Training Costs for Manual and Computer System).

(3) Additionally a small portion of consortium operational costs would be borne by specialized users based on their actual potential users. I.e., CETA, DVR, private schools, Job Service, businesses, etc.

(4) Local costs for computer access would be borne by the local institution or agency. In the case of the UW-system all funds are state GPR, therefore, this cost would be state GPR cost.

(5) The program would continue to function with the current staff at the Wisconsin Vocational Studies Center, UW-Madison and at the same relative level of funding.

Significant data which constitutes the basis for this plan can be summarized as follows: Taken from data tables which follow

(1) Approximately 800,000 students and clients will have WOIS available each year.

(2) Consortium operational cost per potential user will be $.53 the first year and $.56 the second year of the biennium.

(3) WOIS will be available at 1267 sites statewide in the first year and 1382 sites in the second year.

(4) Of these sites, 306 will be computer access the first year, and 428 the second.

(5) The WOIS computer access costs (cost assignable to WOIS for terminal, phones and computer time) will be 885 per site the first year and 831 per site the second year. These costs are over and above consortium costs.

(6) Total statewide cost per potential student/client user will be $.87 the first year and $1.01 the second. This includes the consortium operation and computer access. (Increase in cost is due primarily to 25% increase in computer access sites).

(7) Actual use of the system by student/client (penetration by user base) is projected at 35% the first year and 45% the second. Optimum usage is projected at 70%.

(8) Actual total cost per student/client user is $2.48 the first year and $2.24 the second. Optimum usage of 70% will produce a cost of approximately $1.60.

(9) Consortium operation cost for the first year is $423,549 and $446,790 the second. Of this amount $370,549 and $380,710 respectively will be GPR requested proportionately through DPI, VTAE and UW. The remainder will be from Federally funded agencies or user fees from private institutions or organizations.

(10) Agency requests for consortium operational costs are DPI $227,078 and $224,806; VTAE $63,600 and $70,840; UW $79,871 and $85,064.

## II. WOIS Deliverables 1979-1980 - 1980-1981

This Biennium Budget Proposal provides for the following services for each year of the Biennium:

Maintenance of 19 files of Career, Occupational, Education and Financial information. Included are the following files, 1 - 19:

1. SORT - State Occupational Summary File
2. SOCC - State Occupational Cross Reference File
3. DESC - State Occupational Description File
4. RESC - State Occupational Career Resources File
5. OUTL - State Occupational Outlook File
6. REG1 - State Occupational Region 1 Outlook File
7. REG2 - State Occupational Region 2 Outlook File
8. REG3 - State Occupational Region 3 Outlook File
9. REG4 - State Occupational Region 4 Outlook File
10. REG5 - State Occupational Region 5 Outlook File
11. REG6 - State Occupational Region 6 Outlook File
12. LEAD - Leadership, Employability Skills, Associations, and Developmental Programs File
13. STET - State Education & Training File
14. SAID - State Financial Aids File
15. AIDS - National Scholarship & Financial Aids File
16. ASOC - Armed Services Occupations File
17. COL2 - National Two-Year College File
18. COL4 - National Four-Year College File
19. OCCU - National Occupational File

Update of each file two times per year for the computer version of WOIS.

Update of the manual system once each year.

Enhancement and additions to files and file content as deemed necessary by the WOIS Board.

Inservice to all computer sites.

Inservice to all manual user sites.

Production and dissemination of computer tapes two times per year for computer distribution center. 12-14 centers involved.

Production and dissemination of 3,000 sets of WOIS manual materials.

Production and dissemination of user materials. User materials include:

| Materials Description | Name of Computer Version | Name of Manual Version |
|---|---|---|
| Index to Materials Occupational and Educational | WOIS Index | |
| Survey instrument for Career Assessment and Selection | Computer Questionnaire | |
| Training in the Use of WOIS | Computer Training Manual | Training Manual |
| Instructions for Using the Computer | Commands Poster | |
| Carrying & Filing folder for Printout | Printout Holders | |

| Materials Description | Name of Computer Version | Name of Manual Version |
|---|---|---|
| Instructions and motivation for Parent | WOIS Parents Guide | WOIS Parents Guide |
| Listings of all occupational information | (Files 2-12) | Volume I |
| Listings of all information from other files | (Files 12, 13, 14, 15, 16) | Volume II |
| Manual version search instructions | | SCAN Instruction Guide |
| Manual version search worksheets | | SCAN Worksheets |
| Manual version search mechanisms | | SCAN Sheet |
| Instructions for Using the WOIS System (General Information) | WOIS Instruction Manual | WOIS Instruction Manual |
| Instructions for WOIS Recipes | WOIS Recipes | WOIS Recipes |
| Overview of Search Selectors | WOIS Selectors | WOIS Selectors |
| Motivational Sound Slides/ Film | WOIS Filmstrip | WOIS Filmstrip |
| Instructions for Requesting a normal search of schools, financial aids, and career resources from WOIS | | Batch Processing Directions |
| Worksheets for submitting a request for batch processing to WOIS | | Batch Process Worksheet |

Development and dissemination of training materials and aids to be used with local coordinator and users.

Evaluation and monitoring of user activities.

## III. Staffing

Staffing to accomplish these activities consists of the following:

8.8 Professional person years per year

4.5 Classified person years per year

Breakdown by major function: (per year)

| Professional | Classified | |
|---|---|---|
| .8 | .5 | Administration, management, fiscal control. |
| 3.0 | 2.5 | Information update, file maintenance, computer distribution, and computer center coordination |
| .5 | .5 | Evaluation and monitoring |
| 4.5 | 1.0 | Inservice training, dissemination, user materials development and updating |
| 8.8 | 4.5 | |

(person years)

## IV. WOIS Biennium Budget
## WOIS 1979-80 and 80-81

**Personnel**

| Direct | 1979-80 | 1980-81 |
|---|---|---|
| Total Professional (7.8 person years) | $ 143,350 | $ 153,384 |
| Fringe @ 22.7% (79-80), 24.3% (80-81) | 32,540 | 37,272 |
| Total Professional cost | $ 175,890 | $ 190,656 |
| Total Classified (4.5 person years) | $ 42,351 | $ 45,316 |
| Fringe @ 33.9% (79-80), 36.2% (80-81) | 13,934 | 16,404 |
| | $ 56,285 | $ 61,720 |
| Total Direct Personnel | $ 232,175 | $ 252,376 |
| Contracted Personnel | | |
| Information Development (1 person year) | $ 19,465 | $ 20,828 |
| Fringe @ 24.0% (79-80, 80-81) | 4,672 | 4,999 |
| Total Contracted Cost | $ 24,137 | $ 25,827 |
| Total Personnel | $ 256,312 | $ 278,203 |
| Travel, Equipment & Supplies | | |
| Direct T, E & S | | |
| Travel | $ 17,312 | $ 17,312 |
| Equipment & Capital | 8,450 | $ 8,450 |
| Supplies | 9,000 | 9,000 |
| Total Direct T, E & S | $ 34,762 | $ 34,762 |
| Subtotal | | |
| Other | | |
| Printing, Duplicating, etc. | $ 41,000 | $ 41,000 |
| Comm, Telephone, Postage | 11,000 | 11,000 |
| Comp, Demos, Updates | 22,000 | 22,000 |
| SW Prog - Time Share | 21,000 | 21,000 |
| Consultants | 1,000 | 1,000 |
| AV Program Development Material | 5,101 | 4,729 |
| Total Other | $ 101,101 | $ 100,729 |
| Total T, E & S and other | $ 135,863 | $ 135,491 |
| Total Direct Cost | $ 392,175 | $ 413,694 |
| Indirect @ 8% | $ 31,374 | $ 33,096 |
| Total Cash Needs | $ 423,549 | $ 446,790 |

## V. Users, User Sites and Consortium Costs

| AGENCY | User Base[1] Students or Clients | 1979-1980 Number and type of User Sites: Computer & Manual | Manual Only | Total Sites | Information Development, dissemination, maintenance Manual System, and User Training Costs for Manual Computer System (known as consortium costs). Agency cost for 1979-80 (User base x $.53)[2] | % share of Consortium Cost |
|---|---|---|---|---|---|---|
| DPI Grades 9-12 | 306,629 | 174 | 261 | 435 | $162,513 | 38.36 |
| DPI Grades 7-9 | 121,821 | 43 | 392 | 435 | 64,565 | 15.24 |
| VTAE System | 120,000 | 35 | 50 | 85 | 63,600 | 15.02 |
| UW-System | 150,700 | 27 | 153 | 180 | 79,871 | 18.86 |
| CETA-CBO's | 50,000 | 12 | 45 | 57 | 26,500 | 6.26 |
| OTHER (private schools, agencies business, on user fees). | 50,000[3] | 15 | 60 | 75 | 26,500 | 6.26 |
| TOTALS | 799,150 | 306 | 961 | 1,267 | $423,549 | 100.00 |
| | | 1980 - 81 | | | Agency cost for 1980-81 User base x $.56[2] | |
| DPI Grades 9-12 | 283,736 | 239 | 196 | 435 | $158,892 | 35.56 |
| DPI Grades 7-9 | 117,704 | 87 | 348 | 435 | 65,914 | 14.75 |
| VTAE System | 126,500 | 35 | 50 | 85 | 70,840 | 15.86 |
| UW-System | 151,900 | 27 | 153 | 180 | 85,064 | 19.04 |
| CETA-CBO's | 50,000 | 20 | 137 | 157 | 28,000 | 6.27 |
| OTHER: (private schools, agencies, business, on user fees). | 68,000[3] | 20 | 70 | 90 | 38,080 | 8.52 |
| TOTALS | 797,840 | 428 | 954 | 1,382 | $446,790 | 100.00 |

[1] User base derived from figures supplied by respective agencies.

[2] Cost per student or client ($.53 and $.56) derived by dividing total student/client base into required budget (423,549 ÷ 799,150 and 446,790 ÷ 797,840). See projected budget for 1979-80 and 1980-81.

[3] Other clients represent fee paying users at $.53 each.

## VI. Local Computer Access Costs, 1979-80

| AGENCY | Average annual cost of computer access for each agency site | X | % time computer access is devoted to WOIS use[2] | = | Average annual operational cost of WOIS computer access | X | Number of local WOIS computer user sites | = | Total annual additional user site computer cost for WOIS by agency |
|---|---|---|---|---|---|---|---|---|---|
| . Grades 9-12 | $3000 | | 25 | | $750 | | 174 | | $130,500 |
| : Grades 7-9 | 3000 | | 20 | | 600 | | 43 | | 25,800 |
| .E System | 2500[1] | | 50 | | 1,250 | | 35 | | 43,750 |
| ·System | 2500[1] | | 75 | | 1,875 | | 27 | | 50,625 |
| :A-CBO's | 3000 | | 25 | | 750 | | 12 | | 9,000 |
| IER (private :hools, agencies, isiness, on user se) | 3000 | | 25 | | 750 | | 15[3] | (10 private agencies) | 11,250 |
| :ALS | | | | | | | 306 | | $270,925 ÷ 306 sites = 885/site for computer usage |

### Wisconsin Occupational Information System Local Computer Access Costs, 1980-81

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| : Grades 9-12 | 3000 | | .25 | | 750 | | 239 | $179,250 |
| : Grades 7-9 | 3000 | | .20 | | 600 | | 87 | 52,200 |
| .E System | 2500 | | .50 | | 1,250 | | 35 | 43,750 |
| ·System | 2500 | | .75 | | 1,875 | | 27 | 50,625 |
| :A-CBO's | 3000 | | .25 | | 750 | | 20 | 15,000 |
| IER (private :hools, agencies, isiness, on user fee) | 3000 | | .25 | | 750 | (x 8) | 20[3] | (12 private agencies) 15,000 |
| :ALS | | | | | | | 428 | $355,825 ÷ 428 sites = 831/site for computer usage |

[1] VTAE and UW System computer costs are less because of localized operation, i.e. many have own computer and no one line charges.

[2] % time devoted to WOIS represents actual average assignable time WOIS is available to users at the local site based on rvey of WOIS users 1977 and 1978. I.e., most WOIS computer users share terminal and computer time with institution, heduling, accounting or other users.

[3] Cost of computer operations by private users would not result in public funds expenditure.

## VII. User and Computer Costs Summary

| | | | | 1979-80 Projected User Penetration | | | Actual cost per Client/student Using Syster | |
|---|---|---|---|---|---|---|---|---|
| | | | | % | No. | | | |
| 1979-80 | Information Development Dissemination, Maintenance, Manual System and User Training Cost (Consortium) | $423,549 | | | | | | |
| | Local Computer Access Cost | 270,925 | | | | | | |
| | TOTAL 1979-80 Cost | $694,474 | ÷ 799,150 users = $.87 cost/user | x 35 | 279,702 | 694,474 / 279,702 | = | $2.48 |
| 1980-81 | Information Development Dissemination, Maintenance, Manual System and User Training Cost (Consortium) | $446,790 | | | | | | |
| | Local Computer Access Cost | 355,825 | | | | | | |
| | TOTAL 1980-81 Cost | $802,615 | ÷ 797,840 users = $1.01 cost/user | x 45 | 359,028 | 802,615 / 359,028 | = | $2.24 |

[1]User penetration is the number of persons actually having benefited from WOIS services in a given year vs. the user base which represents the total number of persons having access through the requested agencies. User penetration percentage is a factor of years of experience with the WOIS system. I.e., the longer the system is in place, the higher the penetration percentage. Evaluation studies show that the first year the penetration % equals about 19%, by the end of the second year this figure equals 48% and that the ultimate usage is 70%, with 3 or more years of experience on the system. Based on these figure and estimating the level of statewide implementation in 1979-80 and 1980-81, it is estimated that 35% penetration will be achieved in 1979-80 and 45% in 1980-81.

## VIII. Summary Agency Consortium Costs

### Cost Breakout for Various Agencies and Cost to State, Local and Federal Funds

#### Cost to Agencies for Consortium Support

| Information development, dissemination, maintenance, Manual System, and User Training Costs for Manual and Computer System (Known as consortium costs) | 1979-80 | 1980-81 | Total for Biennium |
|---|---|---|---|
| DPI grades 9-12 | 162,513 | 158,892 | 321,405 |
| DPI grades 7-8 | 64,565 | 65,914 | 130,479 |
| TOTAL DPI grades 7-12 | 227,078 | 224,806 | 451,884 |
| VTAE System | 63,600 | 70,840 | 134,440 |
| UW-System | 79,871 | 85,064 | 164,935 |
| CETA-CBO's | 26,500 | 28,000 | 54,500 |
| Other | 26,500 | 38,080 | 64,580 |
| TOTALS | $423,549 | $446,790 | $870,339 |

#### Summary of State GPR Funds

| | 1979-80 | 1980-81 | Total for Biennium |
|---|---|---|---|
| DPI | 227,078 | 224,806 | 451,884 |
| VTAE | 63,600 | 70,840 | 134,440 |
| UW-System | 79,871 | 85,064 | 164,935 |
| Total GPR | 370,549 | 380,710 | 751,259 |

#### Summary of Non-state GPR Funds

| | 1979-80 | 1980-81 | Total for Biennium |
|---|---|---|---|
| CETA-CBO's | 26,500 | 28,000 | 54,500 |
| Other | 26,500 | 38,080 | 64,580 |
| Total Non-GPR funds | 53,000 | 66,080 | 119,080 |

## IX. Summary Agency Computer Access Costs

| | 1979-80 | 1980-81 | Total for Biennium |
|---|---|---|---|
| Local High Schools (grades 9 - 12) | 130,500 | 179,250 | 309,750 |
| Local Junior or Middle Schools (grades 7 - 12) | 25,800 | 52,200 | 78,000 |
| Total Local Public Schools | 156,300 | 231,450 | 387,750 |
| VTAE Districts | 43,750 | 43,750 | 87,500 |
| UW-Campuses | 50,625 | 50,625 | 101,250 |
| CETA-CBO's | 9,000 | 15,000 | 24,000 |
| OTHER | 11,250 | 15,000 | 26,250 |
| TOTAL Local agency costs | $270,925 | $355,825 | $626,750 |

X. Computer Access Costs to Local, State and Federal Tax Dollars, 1979-80, 1980-81

| | 1979 - 80 | | | | 1980 - 81 | | | |
|---|---|---|---|---|---|---|---|---|
| | Locally Incurred Costs | Less federal or other aids[1] % | Amount | Actual Local & State Tax Dollar | Local Agency Costs | Less federal or other aids % | Amount | Actual Local & State Tax Dollar |
| Public Schools grades 7 - 12 | 156,300 | 25 | 39,075 | 117,225 | 231,450 | 25 | 57,862 | 173,588 |
| VTAE Districts | 43,750 | 25 | 10,937 | 32,813 | 43,750 | 25 | 10,937 | 32,813 |
| UW Campuses | 50,625 | N/A | | 50,625 | 50,625 | N/A | | 50,625 |
| CETA-CBO's | 9,000 | 100 | 9,000 | 000 | 15,000 | 100 | 15,000 | 000 |
| Other | 11,250 | 100 | 11,250 | 000 | 15,000 | 100 | 15,000 | 000 |
| TOTAL | $270,925 | -- | 70,262 | 200,663 | 355,825 | -- | 98,799 | $257,026 |

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[1]This figure is based on past experience with local schools during the first 3 years of implementation. A portion of the start-up costs are frequently acquired from federal program monies while on-going operation is usually funded by local dollars. Since many of the schools will already be into their third, fourth or fifth year of WOIS, it is expected that Federal money will not exceed 25%.

XI. Computer Access Cost to Local and State Tax Dollars, for Biennium, 1979-81

| | Biennium Totals Local expenditure | Less Federal Aids | Actual Local & State Tax Dollar Costs |
|---|---|---|---|
| Public schools grades 7 - 12 | 387,750 | 96,937 | 290,813 |
| VTAE Districts | 87,500 | 21,874 | 65,626 |
| UW Campuses | 101,250 | 000 | 101,250 |
| CETA-CBO's | 24,000 | 24,000 | 000 |
| Other | 26,250 | 26,250 | 000 |
| TOTAL | 626,750 | 169,061 | 457,689 |

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[1]This figure is based on past experience with local schools during the first 3 years of implementation. A portion of the start-up costs are frequently acquired from federal program monies while on-going operation is usually funded by local dollars. Since many of the schools will already be into their third, fourth or fifth year of WOIS, it is expected that Federal money will not exceed 25%.

XII: Total Cost Allocation to local, State, Federal and Private Funds

1979 - 1980

Source of Dollars

| | | Local Source[1] | State | Federal | Private | Total |
|---|---|---|---|---|---|---|
| Locally Incurred Computer Access Costs: | Public | 117,225 | | 39,075 | | 156,300 |
| | VTAE | 32,813 | | 10,937 | | 43,750 |
| | UW | | 50,625 | | | 50,625 |
| | CETA | | | 9,000 | | 9,000 |
| | Other | | | 3,750 | 7,500 | 11,250 |
| TOTAL | | 150,038 | 50,625 | 62,762 | 7,500 | 270,925 |
| Locally Incurred Consortium Support Costs: | Other | | | 36,500 | 16,500 | 53,000 |
| TOTAL Locally Incurred Costs | | 150,038 | 50,625 | 99,262 | 24,000 | 323,925 |
| State GPR Costs Incurred for Consortium Support | | | 370,549 | | | 370,549 |
| TOTAL Costs by Source | | 150,038 | 421,174 | 99,262 | 24,000 | 694,474 |

[1] Local sources include revenue generated through local tax levies, fees and student aid formulas.

XIII. Total Cost Allocation to Local, State, Federal and Private Funds

1980 - 1981
Source of Dollars

| | Local Source[1] | State | Federal | Private | Total |
|---|---|---|---|---|---|
| Locally Incurred Computer Access Costs: Public | 173,588 | | 57,862 | | 231,450 |
| VTAE | 32,813 | | 10,937 | | 43,750 |
| UW | | 50,625 | | | 50,625 |
| CETA | | | 15,000 | | 15,000 |
| Other | | | 6,000 | 9,000 | 15,000 |
| TOTAL | 206,401 | 50,625 | 89,799 | 9,000 | 355,825 |
| Locally Incurred Consortium Support Costs: Other | | | 42,500 | 23,580 | 66,080 |
| TOTAL Locally Incurred Costs | 206,401 | 50,625 | 132,299 | 32,580 | 421,905 |
| State GPR Costs Incurred for Consortium Support | | 380,710 | | | 380,710 |
| TOTAL Costs by Source | 206,401 | 431,335 | 132,299 | 32,580 | 802,615 |

[1]Local sources include revenue generated through local tax levies, fees and student aid formulas.

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XIV. Total Cost Allocation to Local, State, Federal and Private Funds

1979 - 1981

Total for Biennium

| | Local | State | Federal | Private | Total |
|---|---|---|---|---|---|
| Locally Incurred Computer Access Costs: Public | 290,813 | | 96,937 | | 387,750 |
| VTAE | 65,626 | | 21,874 | | 87,500 |
| UW | | 101,250 | | | 101,250 |
| CETA | | 24,000 | | | 24,000 |
| Other | | 9,750 | | 16,500 | 26,250 |
| TOTAL | 356,439 | 135,000 | 118,811 | 16,500 | 626,750 |
| Locally Incurred Consortium Support Costs: Other | | | 79,000 | 40,080 | 119,080 |
| TOTAL Locally Incurred Costs | 356,439 | 135,000 | 197,811 | 56,580 | 745,830 |
| State GPR Costs Incurred for Consortium Support | | 751,259 | | | 751,259 |
| TOTAL Costs by Source | 356,439 | 886,259 | 197,811 | 56,580 | 1,497,089 |

## XV. Local, State, Federal and Private Costs Per User and Per Potential User

1979 - 1980

| | Total Dollar | + | Potential User | = | Share of Potential User Cost | + | Actual Users | = | Actual User Cost Share |
|---|---|---|---|---|---|---|---|---|---|
| State GPR | $421,174 | | 799,150 | | .528 | | 279,702 | | 1.506 |
| Local sources[1] | 150,038 | | 799,150 | | .188 | | 279,702 | | .535 |
| Federal | 99,262 | | 799,150 | | .124 | | 279,702 | | .354 |
| Private | 24,000 | | 799,150 | | .030 | | 279,702 | | .085 |
| TOTAL | $694,474 | | | | .87 | | | | $2.480 |

1980 - 1981

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| State GPR | $431,335 | | 797,840 | | .542 | | 359,028 | | 1.203 |
| Local Sources[1] | 206,401 | | 797,840 | | .259 | | 359,028 | | .575 |
| Federal | 132,299 | | 797,840 | | .167 | | 359,028 | | .369 |
| Private | 32,580 | | 797,840 | | .042 | | 359,028 | | .092 |
| TOTAL | 802,615 | | | | 1.010 | | | | 2.240 |

[1]Local sources include revenue generated through local tax levies, fees and student aid formulas.





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Appendix 2A

SORT INDEX (A-Z)

# SORT INDEX (A-Z)

## A

| SORT NO. | TITLE |
|---|---|
| 9 | Accountant |
| 531 | Accountant, Tax |
| 216 | Actuary |
| 583 | Addresser |
| 593 | Administrative Clerk |
| 549 | Administrator, Traffic Safety |
| 379 | Advertising Lay-Out Planner |
| 303 | Aeronautical Drafter |
| 002 | Aeronautical Engineer |
| 603 | Agent, Reservations (Air Transportation) |
| 603 | Agents, Ticket |
| 214 | Agricultural Engineer |
| 431 | Agronomist |
| 155 | Air Conditioning Mechanic |
| 713 | Aircraft-Aerospace Manufacturing Engine Tester (alt. title for Engine Tester) |
| 749 | Aircraft-Aerospace Manufacturing Instrument Inspector |
| 766 | Aircraft Heat and Vent Mechanic |
| 368 | Aircraft Mechanic |
| 766 | Aircraft, Mechanics/ Assemblers |
| 766 | Aircraft Structures and Surfaces Assemblers |
| 552 | Airline-Radio Operator, Chief |
| 712 | Airplane Inspector |
| 246 | Air-Traffic Control Specialist, Tower |
| 635 | Ambulance Attendant |
| 551 | Analyst, Credit |
| 420 | Analyst, Engineering |
| 437 | Analyst, Seed |
| 438 | Anatomist |
| 841 | Anesthesiologist |
| 282 | Anesthetist, Nurse |
| 222 | Animal Specialist |
| 683 | Annealer (Heat Treatment) |
| 249 | Announcer |
| 600 | Answering Service Operator, Telephone |
| 750 | Appliance Repairer |
| 398 | Appliance Servicer, Gas |
| 424 | Applied Statistician |
| 345 | Appraiser, Property |
| 179 | Arc Welding Machine Operator |
| 207 | Architect |
| 352 | Architect, Landscape |

SORT

| SORT NO. | TITLE |
|---|---|
| 401 | Architect, Marine |
| 354 | Architectural Drafter |
| 825 | Architectural Renderer (Delineator) |
| 270 | Archivist |
| 642 | Armored Car Driver and Guard |
| 523 | Arranger/Composer |
| 523 | Arranger (Music) |
| 392 | Art Collection Manager (alt. title for Curator) |
| 505 | Art Director |
| 348 | Art Teacher |
| 258 | Art Therapist |
| 238 | Artist, Commercial |
| 827 | Artist, Commercial (Letterer) |
| 630 | Artist, Make-Up |
| 745 | Assembler and Adjuster, Chronometer |
| 766 | Assembler, Aircraft Structures and Surfaces |
| 747 | Assembler, Electric Motor |
| 86 | Assembler, Electronics |
| 86 | Assembler, Factory |
| 619 | Assistant Chef |
| 425 | Astronomer |
| 528 | Athlete, Professional |
| 524 | Athletic Trainer |
| 308 | Attendant, Flight |
| 813 | Attendant, Parking Lot |
| 636 | Attendant, School Child Care |
| 493 | Attorney, District |
| 493 | Attorney, Insurance |
| 493 | Attorney, Tax |
| 373 | Auctioneer |
| 554 | Audio Operator |
| 554 | Audio Technicians |
| 462 | Audiologist |
| 472 | Audiometrist |
| 585 | Audit Clerk |
| 9 | Auditor (alt. title for Title Accountant) |
| 746 | Automobile Clocks Repairer |
| 110 | Automobile Body Repairer |
| 108 | Automobile Mechanic |
| 369 | Automobile Painter |
| 67 | Automobile Parts Counterperson |
| 710 | Automobile Repair Service Estimator |
| 58 | Automobile Sales Agent |
| 63 | Automobile Service Station Attendant |
| 543 | Automobile Service Station Manager |
| 651 | Automobile Tester |
| 371 | Automobile Transmission Mechanic |
| 344 | Automobile Upholsterer |
| 773 | Avionics Technician |

SORT

# B

| SORT NO. | TITLE |
|---|---|
| 650 | Bailiff |
| 362 | Baker |
| 19 | Bank Teller |
| 68 | Barber |
| 79 | Bartender |
| 69 | Beautician (alt. title for Cosmetologist) |

| SORT NO. | TITLE |
|---|---|
| 665 | Beekeeper |
| 626 | Bellhop |
| 94 | Bench Carpenter (alt. title for Cabinetmaker) |
| 533 | Benefits Manager |
| 2 | Bicycle Repairer |
| 358 | Bill Collector |
| 589 | Billing Control Clerk |
| 599 | Billing Machine Operator |
| 784 | Billposter |
| 440 | Biochemist |
| 515 | Biological Photographer |
| 439 | Biologist, Marine (Biologist, Aquatic) |
| 304 | Blacksmith |
| 789 | Blaster |
| 792 | Boatbuilder, Wood |
| 792 | Boats Carpenter |
| 808 | Boatswain |
| 110 | Body Repairer, Automobile |
| 818 | Boiler Operator (Firer, Low Pressure) |
| 144 | Boilermaker |
| 838 | Book Repairer |
| 837 | Bookbonder |
| 18 | Bookkeeper |
| 586 | Bookkeeping Machine Operator I |
| 173 | Boring-Machine Set-Up Operator |
| 441 | Botanist |
| 370 | Bowling Alley Mechanic |
| 127 | Brake Coupler |
| 807 | Braker, Passenger Train |
| 343 | Brewery Worker |
| 342 | Brewmaster |
| 101 | Bricklayer |
| 353 | Building Inspector |
| 255 | Buildings Framer, Manufactured |
| 132 | Bulldozer Operator |
| 77 | Bus Driver |
| 3 | Butcher |
| 1 | Buttermaker |
| 55 | Buyer |

# C

| | |
|---|---|
| 94 | Cabinetmaker |
| 781 | Cable Puller |
| 779 | Cable Splicer |
| 780 | Cable Splicer Helper |
| 591 | Calculating Machine Operator |
| 742 | Calibrator, Hydrometer |
| 384 | Camera Repairer |
| 561 | Camp Director |
| 841 | Cardiologist |
| 609 | Career Guidance Technician |
| 103 | Carpenter |
| 792 | Carpenter, Boats |
| 791 | Carpenter, Maintenance |
| 797 | Carpet Layer |
| 764 | Carpet Sewer |
| 506 | Cartoonist |
| 510 | Cartoonist, Motion Pictures |

SORT

SORT

| SORT NO. | TITLE |
|---|---|
| 564 | Case Aide |
| 558 | Casework Supervisor |
| 557 | Caseworker, Child Welfare |
| 720 | Cash Register Servicer |
| 20 | Cashier |
| 60 | Cashier-Checker |
| 102 | Cement Mason |
| 599 | Central Office Operator (Telephone and Telegraph) |
| 262 | Central Office Repairer |
| 375 | Ceramic Engineer |
| 9 | Certified Public Accountant (alt. title for Accountant) |
| 737 | Chain Maker, Hand (Jewelry) |
| 812 | Chauffeur |
| 5 | Cheesemaker |
| 619 | Chefs |
| 619 | Chef Assistant (Chef Sous) |
| 619 | Chef, Pastry |
| 221 | Chemical Engineer |
| 84 | Chemical Lab Technician |
| 386 | Chemicals and Drugs Sales Associate |
| 218 | Chemist |
| 468 | Chemistry Technologist |
| 48 | Child Care Assistant |
| 636 | Child Care Attendant, School |
| 557 | Child Welfare Caseworker |
| 697 | Chipper |
| 297 | Chiropractor |
| 521 | Choral Director |
| 745 | Chronometer Assembler and Adjuster |
| 241 | City Planner (alt. title for Urban-Regional Planner) |
| 355 | Civil Drafter |
| 243 | Civil Engineer |
| 26 | Claim Adjuster |
| 537 | Claim Examiner |
| 315 | Cleaner, Dry |
| 734 | Cleaner, Rug |
| 653 | Cleaner, Window |
| 498 | Clergy Member |
| 593 | Clerk, Administrative |
| 585 | Clerk, Audit |
| 589 | Clerk, Billing Control |
| 606 | Clerk, Collection |
| 578 | Clerk, Correspondence |
| 584 | Clerk, Credit Card |
| 28 | Clerk, File |
| 279 | Clerk, Hospital Admitting |
| 602 | Clerk, Hotel |
| 21 | Clerk, Industry |
| 601 | Clerk, Information (Motor, Railroad and Water Transportation) |
| 335 | Clerk, Mail |
| 608 | Clerk, Medical Record |
| 579 | Clerk, Personnel |
| 607 | Clerk, Post Office |
| 21 | Clerk, Production |
| 625 | Clerk, Room Service |
| 53 | Clerk, Sales |
| 27 | Clerk, Statistical |
| 594 | Clerk, Stock Control |
| 614 | Clerk, Trailer Rental |
| 582 | Clerk, Trust-Mail |
| 571 | Clerk-Typist |

| SORT NO. | TITLE |
|---|---|
| 580 | Clerk, Yard |
| 446 | Clinical Psychologist |
| 365 | Clinician, Speech and Hearing |
| 512 | Clothes Designers |
| 691 | Coal Washer |
| 721 | Coin Machine Service Repairer |
| 393 | Coin Vending Machine Collector |
| 606 | Collection Clerk |
| 358 | Collector, Bill |
| 482 | College or University Faculty Member |
| 500 | Columnist/Commentator |
| 141 | Combination Welder |
| 500 | Commentator/Columnist |
| 75 | Commercial Airline Pilot |
| 238 | Commercial Artist |
| 827 | Commercial Artist (Letterer) |
| 511 | Commercial Designer |
| 154 | Communications Line Maintainer |
| 461 | Community Health Nurse, Staff |
| 546 | Community Organization Director |
| 560 | Community Organization Worker |
| 523 | Composer/Arranger |
| 523 | Composer (Music) |
| 796 | Composition Weatherboard Applier |
| 828 | Compositor (Printing and Publishing) |
| 16 | Computer Peripheral Equipment Operator |
| 10 | Computer Programmer |
| 699 | Concrete Mixing Plant Laborer |
| 521 | Conductor, Orchestra |
| 565 | Conductor, Passenger Car |
| 800 | Conduit Mechanic (Construction) |
| 215 | Conservationist, Soil |
| 153 | Construction Equipment Mechanic (Heavy) |
| 541 | Construction Inspector |
| 307 | Construction Worker |
| 802 | Construction Worker II |
| 776 | Constructor, Elevator |
| 467 | Consultant, Dietary |
| 246 | Control Tower Operator (alt. title for Air-Traffic Control Specialist, Tower) |
| 46 | Cook, Hotel and Restaurant |
| 47 | Cook, Institution |
| 620 | Cook, Pastry (Hotel and Restaurant) |
| 621 | Cook, Railroad |
| 45 | Cook, Short Order |
| 542 | Coordinator, Fashion |
| 501 | Copy Writer |
| 97 | Coremaker |
| 493 | Corporation Lawyer |
| 304 | Correction Officer |
| 465 | Corrective Therapist |
| 578 | Correspondence Clerk |
| 69 | Cosmetologist |
| 225 | Counselor |
| 447 | Counselor, Residence |

SORT

| SORT NO. | TITLE |
|---|---|
| 484 | County-Agricultural Agent |
| 34 | Court Reporter |
| 509 | Creative Director |
| 551 | Credit Analyst |
| 536 | Credit and Collection Manager |
| 584 | Credit Card Clerk |
| 639 | Cremator |
| 332 | Crossing Guard |
| 692 | Crude Oil Treater |
| 395 | Crusher Operator, Gravel |
| 392 | Curator |
| 43 | Custom Sewer |
| 538 | Customs Inspector |
| 681 | Cylinder Grinder |
| 690 | Cylinder Machine Operator |
| 164 | Cylinder Press Operator |
| 470 | Cytotechnologist |

SORT

# D

| SORT NO. | TITLE |
|---|---|
| 432 | Dairy Technologist |
| 253 | Dance Teacher |
| 519 | Dancer |
| 64 | Darkroom Technician (alt. title for Photographic Technician) |
| 413 | Data Processing Systems Analyst |
| 254 | Day Care Teacher |
| 271 | Day Worker |
| 809 | Deckhand, Maintenance (Able Seaman) |
| 513 | Decorator, Set |
| 49 | Decorator and Interior Designer |
| 513 | Decorator/Designer, Set |
| 598 | Deliverer, Outside |
| 54 | Delivery Driver |
| 612 | Delivery Driver, Newspaper |
| 298 | Dental Assistant |
| 39 | Dental Hygienist |
| 357 | Dental Laboratory Technician |
| 228 | Dentist |
| 457 | Dentists, Specialists |
| 512 | Designer, Clothes |
| 511 | Designer, Commercial |
| 507 | Designer, Graphic |
| 242 | Designer, Industrial |
| 514 | Designer, Package |
| 513 | Designer, Set |
| 260 | Designer, Tool |
| 513 | Designer/Decorator, Set |
| 363 | Detective, Private |
| 446 | Developmental Psychologist |
| 835 | Developer (Photo-finish) |
| 836 | Developer, Print Automatic |
| 756 | Diamond Finishing Supervisor |
| 720 | Dictating-Transcribing Machine Servicer |
| 701 | Die Maker, Bench, Stamping |
| 717 | Diesel Engine Tester |
| 109 | Diesel Mechanic |
| 231 | Dietitian |

| SORT NO. | TITLE |
|---|---|
| 467 | Dietitian, Consultant |
| 466 | Dietitian, Research |
| 505 | Director, Art |
| 561 | Director, Camp |
| 521 | Director, Choral |
| 546 | Director, Community Organization |
| 450 | Director, Employment Research and Planning |
| 448 | Director, Guidance in Public Schools |
| 521 | Director, Music |
| 532 | Director, Placement |
| 562 | Director, Recreation Center |
| 518 | Director, Stage |
| 547 | Director, Volunteer Services |
| 821 | Dispatcher, Gas |
| 744 | Dispensing I Optician |
| 615 | Dispensing II Optician |
| 287 | Display Person |
| 493 | District Attorney |
| 627 | Doorkeeper |
| 689 | Doughnut Machine Operator |
| 403 | Drafter, Aeronautical |
| 354 | Drafter, Architectural |
| 355 | Drafter, Civil |
| 405 | Drafter, Electrical |
| 82 | Drafter, Mechanical |
| 319 | Drapery Sewer |
| 787 | Dredge Operator (Construction) |
| 168 | Drill Press Operator |
| 160 | Drill Press Set-Up Operator |
| 160 | Drill Press Set-Up Operator, Multiple Spindle |
| 816 | Driller, Rotary (Petroleum Products) |
| 77 | Driver, Bus |
| 54 | Driver, Delivery |
| 805 | Driver, Dumptruck |
| 805 | Driver, Explosives Truck |
| 805 | Driver, Food Service |
| 805 | Driver, Log Truck |
| 613 | Driver, Lunch Truck |
| 612 | Driver, Newspaper Delivery |
| 76 | Driver, Taxi |
| 805 | Driver, Truck Light |
| 126 | Driver, Truck-Tractor/ Trailer |
| 642 | Driver and Guard, Armored Car |
| 291 | Driver's License Examiner |
| 805 | Drivers, Specialists |
| 139 | Drop-Hammer Operator |
| 386 | Drugs and Chemicals Sales Associate |
| 315 | Dry Cleaner |
| 400 | Dry-Wall Installer |
| 805 | Dumptruck Driver |
| 576 | Duplicating Machine Operators, Offset |

## E

| | |
|---|---|
| 433 | Ecologist, Forest |
| 449 | Economist |

SCOPE

| SORT NO. | TITLE |
|---|---|
| 824 | Editor, Film |
| 504 | Editor, News (Printing and Publishing) |
| 503 | Editor, Newspaper |
| 501 | Editorial Writer |
| 499 | Education Director, Religious |
| 446 | Educational Psychologist |
| 474 | Educator, Public Health |
| 130 | Electric Bridge or Gantry Crane Operator |
| 752 | Electric Meter Repairer |
| 747 | Electric Motor Assembler |
| 261 | Electric Motor Repairer |
| 820 | Electric Plant Operators |
| 752 | Electric Repairers |
| 115 | Electrical Appliance Servicer |
| 405 | Electrical Drafter |
| 208 | Electrical Engineer |
| 752 | Electrical Instrument Repairer |
| 142 | Electrical Line Maintainer |
| 113 | Electrical Repairer |
| 81 | Electrical/Electronic Technician |
| 104 | Electrician |
| 774 | Electrician, Radio |
| 281 | Electrocardiograph Technician |
| 275 | Electroencephalograph Technician |
| 631 | Electrologist |
| 290 | Electromedical Equipment Repairer |
| 86 | Electronics Assembler |
| 778 | Electronics Mechanic |
| 829 | Electrotyper |
| 236 | Elementary School Teacher |
| 776 | Elevator Constructor |
| 157 | Elevator Mechanic |
| 366 | Embalmer/Funeral Director |
| 479 | Emergency Medical Technician |
| 340 | Employment Interviewer |
| 450 | Employment Research and Planning Director |
| 713 | Engine Tester, Aircraft-Aerospace Manufacturing |
| 717 | Engine Tester, Diesel |
| 402 | Engineer, Aeronautical |
| 214 | Engineer, Agricultural |
| 375 | Engineer, Ceramic |
| 221 | Engineer, Chemical |
| 243 | Engineer, Civil |
| 208 | Engineer, Electrical |
| 714 | Engineer, Flight |
| 213 | Engineer, Industrial |
| 129 | Engineer, Locomotive |
| 414 | Engineer, Marine |
| 211 | Engineer, Mechanical |
| 409 | Engineer, Mining |
| 415 | Engineer, Nuclear |
| 88 | Engineer, Operating |
| 409 | Engineer, Petroleum |
| 556 | Engineer, Recording |
| 412 | Engineer, Safety |
| 409 | Engineer, Safety Mines |
| 32 | Engineer, Sanitary |
| 406 | Engineer, Transportation |

SORT

| SORT NO. | TITLE |
|---|---|
| 420 | Engineering Analyst |
| 423 | Engineering and Scientific Programmer |
| 409 | Engineers, Natural Resources |
| 93 | Engraver I |
| 725 | Engraving Press Operator |
| 442 | Entomologist |
| 535 | Equal-Opportunity Representative |
| 634 | Establishment Guide |
| 710 | Estimator, Automobile Repair Service |
| 537 | Examiner, Claim |
| 788 | Excavator |
| 550 | Executive Secretary |
| 596 | Expediter |
| 446 | Experimental Psychologist |
| 805 | Explosives Truck Driver |
| 485 | Extension Service Specialists |
| 652 | Exterminator, Termite |
| 31 | Extruder Operator |
| 122 | Extruder Operator, Forging |

# F

| | |
|---|---|
| 418 | Facilities Planner |
| 86 | Factory Assembler |
| 482 | Faculty Member, College or University |
| 4 | Farm Equipment Mechanic |
| 252 | Farm Hand, General I |
| 716 | Farm Machinery Set-Up Mechanic |
| 629 | Farmer, Fish |
| 660 | Farmer, Fur |
| 251 | Farmer, General |
| 664 | Farmer, Poultry |
| 654 | Farmworker, Vegetable II |
| 542 | Fashion Coordinator |
| 289 | FBI Agent |
| 274 | Fiberglass Lay-Up Worker |
| 501 | Fiction and Non-Fiction Prose Writer |
| 28 | File Clerk |
| 166 | Filling Line Mechanic |
| 824 | Film Editor |
| 832 | Film Inspector |
| 597 | Film or Tape Librarian |
| 481 | Financial-Aids Officer |
| 294 | Fingerprint Examiner |
| 643 | Fire Chief |
| 644 | Fire Inspector |
| 675 | Fire Lookout |
| 673 | Fire Warden |
| 72 | Firefighter |
| 819 | Firer, Marine |
| 301 | Fish and Game Warden |
| 689 | Fish Farmer |
| 670 | Fish Hatchery Laborer |
| 828 | Fisher, Net |
| 140 | Fitter, Structural Metal |
| 17 | Fixer, Knitting Machine |
| 308 | Flight Attendant |
| 714 | Flight Engineer |
| 841 | Flight Surgeon |
| 313 | Floor Layer |

SORT

| SORT NO. | TITLE |
|---|---|
| 272 | Florist, Retail |
| 200 | Folding Machine Operator (Paper Products) |
| 539 | Food and Drug Inspector |
| 805 | Food Service Driver |
| 336 | Food Service Supervisor |
| 334 | Food Service Worker |
| 637 | Food Service Worker, Hospital |
| 41 | Food Technician |
| 87 | Food Technologist |
| 433 | Forest Ecologist |
| 676 | Forest Worker |
| 244 | Forester |
| 674 | Forester Aide |
| 8 | Forestry Technician |
| 706 | Forger, Heavy |
| 122 | Forging Extruder Operator |
| 196 | Forging Press Operator |
| 185 | Foundry Worker, General |
| 255 | Framer, Manufactured Buildings |
| 171 | Freezer Operator |
| 366 | Funeral Director/ Embalmer |
| 660 | Fur Farmer |
| 799 | Furnace Hot Air Installer and Repairer |
| 396 | Furnace Installer |
| 183 | Furnace Operator |
| 198 | Furnace Tender |
| 709 | Furnace Tender (Heater) |
| 755 | Furniture Refinisher |
| 318 | Furniture Upholsterer |
| 760 | Furrier |

# G

| SORT NO. | TITLE |
|---|---|
| 540 | Gamekeeper |
| 130 | Gantry Crane or Electric Bridge Operator |
| 311 | Garbage Collector |
| 762 | Garment Fitter |
| 398 | Gas Appliance Servicer |
| 821 | Gas Dispatcher |
| 152 | Gasoline Engine Repairer (Small) |
| 339 | Gear Hobbing Machine Operator |
| 461 | General Duty Nurse |
| 146 | General Factory Laborer |
| 252 | General Farm Hand I |
| 251 | General Farmer |
| 185 | General Foundry Worker |
| 841 | General Practitioner |
| 443 | Geneticist |
| 427 | Geologists |
| 14 | Geophysicist (alt. title for Hydrologist) |
| 798 | Glass Installer (Automobile Service) |
| 730 | Glass Lathe Operator |
| 782 | Glass Tinter |
| 106 | Glazier |
| 698 | Gluing Machine Operator (Woodworking) |
| 678 | Grader, Log |
| 507 | Graphic Designer |

| SORT NO. | TITLE |
|---|---|
| 855 | Gravel Crusher Operator |
| 655 | Greenhouse Superintendent (Horticultural) |
| 7 | Greenhouse Worker (alt. title for Nursery Worker) |
| 656 | Greens Superintendent |
| 736 | Grinder, Platen |
| 161 | Grinder Operator, Tool |
| 657 | Groundskeeper, Industrial and Commercial |
| 658 | Groundskeeper, Parks and Grounds |
| 563 | Group Work Program Aide |
| 559 | Group Worker |
| 78 | Guard |
| 332 | Guard, Crossing |
| 642 | Guard and Driver, Armored Car |
| 448 | Guidance Director in Public Schools |
| 609 | Guidance Technician, Career |
| 634 | Guide, Establishment |
| 633 | Guide, Travel |
| 767 | Gun Welder |
| 359 | Gunsmith |
| 541 | Gynecologist |

# H

| SORT NO. | TITLE |
|---|---|
| 733 | Hand Loom Weaver |
| 645 | Harbor Police Launch Commander |
| 283 | Health Administrator, Hospital |
| 259 | Health Aide, Home |
| 408 | Heat-Transfer Technician |
| 153 | Heavy Construction Equipment Mechanic |
| 270 | Historian (alt. title for Archivist) |
| 483 | Home Economist |
| 259 | Home Health Aide |
| 616 | Home Housekeeper |
| 178 | Honing Machine Set-Up Operator |
| 667 | Horse Trainer |
| 666 | Horseshoer |
| 212 | Horticulturist |
| 279 | Hospital Admitting Clerk |
| 662 | Hospital Attendant, Veterinary |
| 637 | Hospital Food Service Worker |
| 283 | Hospital/Health Administrator |
| 330 | Host/Hostess, Restaurant |
| 46 | Hotel and Restaurant Cook |
| 620 | Hotel and Restaurant Pastry Cook |
| 602 | Hotel Clerk |
| 316 | Hotel/Motel Cleaner |
| 317 | Hotel/Motel Manager |
| 624 | Housekeeper (Hotel and Restaurant; Medical Services; Real Estate) |
| 616 | Housekeeper, Home |
| 501 | Humorist |
| 705 | Hydraulic Operator (Nonferrous Metal Alloys) |

SORT

| SORT NO. | TITLE |
|---|---|
| 14 | Hydrologist |
| 742 | Hydrometer Calibrator |
| 475 | Hygien'st, Industrial |

# I

| SORT NO. | TITLE |
|---|---|
| 508 | Illustrators |
| 657 | Industrial and Commercial Groundskeeper |
| 242 | Industrial Designer |
| 213 | Industrial Engineer |
| 83 | Industrial Engineer Technician |
| 475 | Industrial Hygienist |
| 337 | Industrial Safety Inspector |
| 394 | Industrial Truck Mechanic |
| 134 | Industrial Truck Operator |
| 296 | Industrial Waste Inspector |
| 21 | Industry Clerk |
| 601 | Information Clerk (Motor, Railroad and Water Transportation) |
| 278 | Inhalation Therapist |
| 712 | Inspector, Airplane |
| 353 | Inspector, Building |
| 541 | Inspector, Construction |
| 538 | Inspector, Customs |
| 832 | Inspector, Film |
| 644 | Inspector, Fire |
| 539 | Inspector, Food and Drug |
| 337 | Inspector, Industrial Safety |
| 296 | Inspector, Industrial Waste |
| 749 | Inspector, Instruments (Aircraft-Aerospace Manufacturing) |
| 743 | Inspector, Instruments and Appliances |
| 728 | Inspector, Log |
| 648 | Inspector, Police I |
| 459 | Inspector, Veterinary Livestock |
| 798 | Installer, Glass (Automobile Service) |
| 799 | Installer and Repairer, Furnace Hot Air |
| 772 | Installer and Repairer, Station (Telephone and Telegraph) |
| 47 | Institution Cook |
| 525 | Instructor, Sports |
| 486 | Instructor, Vocational Training |
| 749 | Instrument Inspector (Aircraft-Aerospace Manufacturing) |
| 740 | Instrument Mechanic |
| 741 | Instrument Technician (various) |
| 520 | Instrumental Musician |
| 404 | Instrumentation Technician |
| 416 | Instruments Surveyor Assistant |
| 795 | Insulator Worker and Pipe Coverer |
| 26 | Insurance Adjuster (alt. title for Claim Adjuster) |
| 493 | Insurance Attorney |

| SORT NO. | TITLE |
|---|---|
| 56 | Insurance Sales Agent |
| 49 | Interior Designer and Decorator |
| 167 | Interpreter/Translator |
| 340 | Interviewer, Employment |
| 648 | Investigator, Narcotics |
| 648 | Investigator, Vice |
| 107 | Iron Worker, Ornamental |

# J

| | |
|---|---|
| 309 | Janitor |
| 62 | Jeweler |
| 737 | Jewelry Chain Maker, Hand |
| 738 | Jewelry Mold Maker I |
| 739 | Jewelry Ring Maker |
| 753 | Jewelry Stone Setter |
| 293 | Job Service Specialist |
| 526 | Jockey |
| 494 | Judge |

# K

| | |
|---|---|
| 15 | Key-Punch Operator |
| 232 | Kindergarten Teacher |
| 623 | Kitchen Helper |
| 17 | Knitting Machine Fixer |
| 199 | Knitting Machine Operator |

# L

| | |
|---|---|
| 534 | Labor Relations Manager |
| 458 | Laboratory Animal Care Veterinarian |
| 277 | Laboratory Assistant, Medical |
| 210 | Laboratory Assistant, Veterinary |
| 250 | Laboratory Equipment Cleaner |
| 357 | Laboratory Technician, Dental |
| 699 | Laborer, Concrete Mixing Plant |
| 146 | Laborer, General Factory |
| 352 | Landscape Architect |
| 417 | Laser Technician |
| 730 | Lathe Operator, Glass |
| 785 | Lather (Construction) |
| 645 | Launch Commander, Harbor Police |
| 640 | Laundry Worker |
| 235 | Lawyer |
| 493 | Lawyer, Corporation |
| 493 | Lawyer, Probate |
| 493 | Lawyers, Specialists |
| 700 | Lay-Out Machine Builder |
| 135 | Lay-Out Worker |
| 700 | Lay-Out Worker (Machine Shop) |

SCFT

| SORT NO. | TITLE |
|---|---|
| 761 | Leather Workers |
| 24 | Legal Secretary |
| 234 | Librarian |
| 597 | Librarian, Film or Tape |
| 490 | Librarian, Music |
| 488 | Librarian, Special Library |
| 575 | Librarian, Tape |
| 11 | Library Assistant |
| 489 | Library Technical Assistant |
| 36 | Licensed Practical Nurse |
| 805 | Light Truck Driver |
| 154 | Line Maintainer, Communications |
| 723 | Linotype Operator |
| 66 | Lithographic Photographer |
| 459 | Livestock Inspector, Veterinary |
| 661 | Livestock Rancher |
| 331 | Loan Officer |
| 156 | Locksmith |
| 129 | Locomotive Engineer |
| 678 | Log Grader |
| 728 | Log Inspector |
| 679 | Log Marker |
| 805 | Log Truck Driver |
| 6 | Logger |
| 675 | Lookout, Fire |
| 761 | Luggage Maker |
| 729 | Lumber Straightener |
| 613 | Lunch Truck Driver |

SORT

# M

| | |
|---|---|
| 700 | Machine Builder |
| 204 | Machine Cutter |
| 718 | Machine Maintenance Repairer |
| 118 | Machine Set-Up Operator |
| 361 | Machinery Sales Associate |
| 90 | Machinist |
| 715 | Machinist, Marine Engine |
| 495 | Magistrate |
| 316 | Maid (alt. title for Hotel/Motel Cleaner) |
| 74 | Mail Carrier |
| 335 | Mail Clerk |
| 719 | Mail Processing Equipment Mechanic |
| 791 | Maintenance Carpenter |
| 809 | Maintenance Deckhand (Able Seaman) |
| 113 | Maintenance Electrician (alt. title for Electrical Repairer) |
| 111 | Maintenance Mechanic |
| 803 | Maintenance Repairer, Factory or Mill |
| 630 | Make-Up Artist |
| 52 | Management Trainee |
| 533 | Manager, Benefits |
| 536 | Manager, Credit and Collection |
| 534 | Manager, Labor Relations |

| SORT NO. | TITLE |
|---|---|
| 321 | Manager, Restaurant |
| 544 | Manager, Retail Store |
| 543 | Manager, Service Station |
| 628 | Manicurist |
| 463 | Manual-Arts Therapist |
| 33 | Manufacturers' Representative |
| 169 | Manufacturing Metal Treater |
| 793 | Marble Setter |
| 401 | Marine Architect |
| 439 | Marine Biologist (Aquatic) |
| 715 | Marine Engine, Machinist |
| 414 | Marine Engineer |
| 819 | Marine Firer |
| 715 | Marine Mechanic/ Machinist |
| 679 | Marker, Log |
| 268 | Market Research Analyst |
| 343 | Masher (alt. title for Brewery Worker) |
| 102 | Mason, Cement |
| 312 | Material Handler |
| 422 | Mathematical Technician |
| 421 | Mathematicians |
| 622 | Meat Cutter |
| 155 | Mechanic, Air Conditioning |
| 368 | Mechanic, Aircraft |
| 766 | Mechanic, Aircraft Heat and Vent |
| 108 | Mechanic, Automobile |
| 371 | Mechanic, Automobile Transmission |
| 370 | Mechanic, Bowling Alley |
| 800 | Mechanic, Conduit (Construction) |
| 109 | Mechanic, Diesel |
| 778 | Mechanic, Electronics |
| 157 | Mechanic, Elevator |
| 4 | Mechanic, Farm Equipment |
| 716 | Mechanic, Farm Machinery Set-Up |
| 166 | Mechanic, Filling Line |
| 153 | Mechanic, Heavy Construction Equipment |
| 394 | Mechanic, Industrial Truck |
| 740 | Mechanic, Instrument (Any Industry) |
| 719 | Mechanic, Mail Processing Equipment |
| 111 | Mechanic, Maintenance |
| 349 | Mechanic, Medical Facility Maintenance |
| 715 | Mechanic, Motorboat |
| 383 | Mechanic, Motorcycle |
| 116 | Mechanic, Refrigeration |
| 711 | Mechanic, Tractor |
| 715 | Mechanic/Machinist, Marine |
| 82 | Mechanical Drafter |
| 211 | Mechanical Engineer |
| 80 | Mechanical Engineering Technician |
| 766 | Mechanics/Assemblers, Aircraft |
| 508 | Medical and Scientific Illustrator |
| 477 | Medical Assistant |

SORT

SORT

| SORT NO. | TITLE |
|---|---|
| 349 | Medical Facility Maintenance Mechanic |
| 277 | Medical Laboratory Assistant |
| 38 | Medical Laboratory Technologist |
| 285 | Medical Record Administrator |
| 608 | Medical Record Clerk |
| 284 | Medical Record Technician |
| 40 | Medical Secretary |
| 38 | Medical Technologist |
| 38 | Medical Technologist, Nuclear |
| 37 | Medical X-Ray Technician (alt. title for Radiologic Technologist) |
| 264 | Metal Fabricator |
| 92 | Metal Patternmaker |
| 686 | Metal Pourer |
| 169 | Metal Treater, Manufacturing |
| 765 | Metal Worker, Reinforcing |
| 420 | Metallographer |
| 385 | Meteorologist |
| 305 | Meter Reader |
| 223 | Microbiologist |
| 469 | Microbiology Technologist |
| 461 | Midwife-Nurse |
| 124 | Milling Machine Operator, Production |
| 162 | Milling Machine Set-Up Operator |
| 91 | Millwright |
| 409 | Mining Engineer |
| 694 | Mixer (Paint and Varnish) |
| 202 | Mixing Machine Operator |
| 382 | Model |
| 738 | Mold Maker I (Jewelry) |
| 30 | Mold Setter, Plastics |
| 98 | Molder |
| 181 | Molding Machine Tender, Plastic |
| 566 | Monitor, Radiation |
| 723 | Monotype Keyboard Operator |
| 317 | Motel Manager (alt. title for Hotel/ Motel Manager) |
| 510 | Motion Picture Cartoonist |
| 823 | Motion Picture Projectionist |
| 521 | Motion Picture, Radio and Television Music Director |
| 502 | Motion Picture, Radio and Television Reader |
| 715 | Motorboat Mechanic |
| 383 | Motorcycle Mechanic |
| 392 | Museum Manager (alt. title for Curator) |
| 491 | Museum Technician |
| 523 | Music Arranger |
| 523 | Music Composer |
| 521 | Music Directors |
| 521 | Music Director (Motion Picture, Radio and Television) |
| 490 | Music Librarian |
| 351 | Music Teacher |
| 299 | Music Therapist |
| 520 | Musician, Instrumental |

# N

| | |
|---|---|
| 29 | Nailing Machine Operator |

| SORT NO. | TITLE |
|---|---|
| 648 | Narcotics Investigator |
| 409 | Natural Resources Engineer |
| 8 | Natural Resources Technician (alt. title for Forestry Technician) |
| 628 | Net Fisher |
| 841 | Neurologist |
| 504 | News Editor |
| 604 | News Operator, Wire-Photo |
| 50 | News Photographer (alt. title for Photographer) |
| 237 | News Reporter (alt. title for Reporter) |
| 249 | Newscaster (alt. title for Announcer) |
| 612 | Newspaper Delivery Driver |
| 503 | Newspaper Editor |
| 78 | Night Watcher (alt. title for Guard) |
| 501 | Nonfiction and Fiction, Prose Writer |
| 415 | Nuclear Engineer |
| 38 | Nuclear Medical Technologist |
| 407 | Numerical Control Programmer, Tool |
| 407 | Numerical Control Tool Programmer |
| 461 | Nurse, General Duty |
| 36 | Nurse, Licensed Practical |
| 461 | Nurse, Office |
| 461 | Nurse, Private Duty |
| 35 | Nurse, Registered |
| 461 | Nurse, School |
| 461 | Nurse, Staff, Community Health |
| 461 | Nurse, Staff Occupational Health Nursing |
| 276 | Nurse Aide/Orderly |
| 282 | Nurse Anesthetist |
| 461 | Nurse Practitioner |
| 461 | Nurse-Midwife |
| 48 | Nursery School Attendant (alt. title for Child Care Assistant) |
| 7 | Nursery Worker |
| 461 | Nurses, Specialists |
| 283 | Nursing Home Administrator (alt. title for Hospital/ Health Administrator) |

# O

| SORT NO. | TITLE |
|---|---|
| 841 | Obstetrician |
| 461 | Occupational Health Nurse, Staff |
| 247 | Occupational Therapist |
| 42 | Occupational Therapy Assistant |
| 430 | Oceanographer, Assistant |
| 59 | Office Machine Sales Agent |
| 117 | Office Machine Servicer |
| 461 | Office Nurse |
| 304 | Officer, Correction |
| 303 | Officer, Parking Enforcement |
| 71 | Officer, Police |

SORT

| SORT NO. | TITLE |
|---|---|
| 649 | Officer, Police II |
| 726 | Offset Press Operator I |
| 576 | Offset-Duplicating Machine Operators |
| 794 | Oil Burner Servicer and Installer |
| 88 | Operating Engineer |
| 280 | Operating Room Technician |
| 545 | Operations Officer |
| 552 | Operator, Airline-Radio, Chief |
| 179 | Operator, Arc Welding Machine |
| 554 | Operator, Audio |
| 173 | Operator, Boring Machine Set-Up |
| 132 | Operator, Bulldozer |
| 16 | Operator, Computer Peripheral Equipment |
| 168 | Operator, Drill Press |
| 160 | Operator, Drill Press Set-Up, Multiple Spindle |
| 139 | Operator, Drop-Hammer |
| 130 | Operator, Electric Bridge or Gantry Crane |
| 31 | Operator, Extruder |
| 200 | Operator, Folding Machine (Paper Products) |
| 122 | Operator, Forging Extruder |
| 196 | Operator, Forging Press |
| 171 | Operator, Freezer |
| 183 | Operator, Furnace |
| 339 | Operator, Gear Hobbing Machine |
| 395 | Operator, Gravel Crusher |
| 178 | Operator, Honing Machine Set-Up |
| 134 | Operator, Industrial Truck |
| 15 | Operator, Key-Punch |
| 199 | Operator, Knitting Machine |
| 723 | Operator, Linotype |
| 118 | Operator, Machine Set-Up |
| 162 | Operator, Milling Machine Set-Up |
| 202 | Operator, Mixing Machine |
| 723 | Operator, Monotype Keyboard |
| 29 | Operator, Nailing Machine |
| 149 | Operator, Paving Machine |
| 723 | Operator, Phototypesetter |
| 99 | Operator, Power Plant |
| 820 | Operator, Power Reactor |
| 121 | Operator, Punch-Press Set-Up |
| 553 | Operator, Radio and Television Transmitter |
| 184 | Operator, Router |
| 133 | Operator, Scraper |
| 338 | Operator, Screw Machine, Production |
| 137 | Operator, Sewage Plant |
| 44 | Operator, Sewing Machine |
| 175 | Operator, Shear Set-Up |

SORT

| SORT NO. | TITLE |
|---|---|
| 820 | Operator, Substation |
| 176 | Operator, Tape-Control Machine |
| 73 | Operator, Telephone |
| 599 | Operator, Telephone and Telegraph, Central Office |
| 609 | Operator, Telephone Answering Service |
| 378 | Operator, Television Camera |
| 161 | Operator, Tool Grinder |
| 174 | Operator, Tool Planer Set-Up |
| 131 | Operator, Truck Crane |
| 119 | Operator, Turret-Lathe Set-Up |
| 555 | Operator, Video |
| 136 | Operator, Water Treatment Plant |
| 604 | Operator, Wire-Photo News |
| 120 | Operator, Woodworking Machine |
| 723 | Operators, Printing |
| 841 | Opthalmologist |
| 381 | Optician |
| 744 | Optician, Dispensing I |
| 615 | Optician, Dispensing II |
| 240 | Optometrist |
| 39 | Oral Hygienist (alt. title for Dental Hygienist) |
| 456 | Oral Pathologist |
| 457 | Oral Surgeon |
| 521 | Orchestra Conductor |
| 276 | Orderly/Nurse Aide |
| 546 | Organization Director, Community |
| 560 | Organization Worker, Community |
| 107 | Ornamental Iron Worker |
| 457 | Orthodontist |
| 478 | Orthoptist |
| 391 | Orthotist/Prosthetist |
| 598 | Outside Deliverer |
| 278 | Oxygen Therapy Technician (alt. title for Inhalation Therapist) |

# P

| SORT NO. | TITLE |
|---|---|
| 514 | Package Designer |
| 201 | Packager |
| 694 | Paint and Varnish Mixer |
| 369 | Painter, Automobile |
| 148 | Painter, Construction |
| 96 | Painter, Sign |
| 145 | Painter, Spray |
| 138 | Paper Mill Operatives |
| 783 | Paperhanger |
| 497 | Paralegal Assistant |
| 397 | Park Ranger |
| 303 | Parking Enforcement Officer |
| 813 | Parking Lot Attendant |
| 658 | Parks and Grounds Groundskeeper |
| 333 | Parole and Probation Agent |

| SORT NO. | TITLE |
|---|---|
| 565 | Passenger Car Conductor |
| 638 | Passenger Service Representative (Air Transportation) |
| 807 | Passenger Train Braker |
| 619 | Pastry Chef |
| 620 | Pastry Cook (Hotel and Restaurant) |
| 496 | Patent Agent |
| 454 | Pathologist |
| 456 | Pathologist, Oral |
| 92 | Patternmaker, Metal |
| 758 | Patternmaker, Textile |
| 399 | Patternmaker, Wood |
| 149 | Paving-Machine Operator |
| 841 | Pediatrician |
| 663 | Pelter |
| 573 | Perforating-Typesetter Operator |
| 530 | Performer, Stunt |
| 457 | Periodontist |
| 16 | Peripheral Equipment Operator, Computer |
| 617 | Personal Attendant |
| 239 | Personnel Administration |
| 579 | Personnel Clerk |
| 367 | Pest Control Technician |
| 409 | Petroleum Engineer |
| 427 | Petroleum Geologist |
| 230 | Pharmacist |
| 444 | Pharmacologist |
| 460 | Pharmacy Helper |
| 123 | Photoengraver, Printing-Publishing |
| 834 | Photograph Finisher |
| 826 | Photograph Retoucher |
| 50 | Photographer |
| 515 | Photographer, Biological |
| 66 | Photographer, Lithographic |
| 515 | Photographer, Scientific |
| 515 | Photographer, Still |
| 515 | Photographers, Specialists |
| 64 | Photographic Technician |
| 577 | Photographic-Machine Operator |
| 515 | Photojournalist |
| 723 | Phototypesetter Operator |
| 356 | Physical Education Teacher |
| 248 | Physical Therapist |
| 227 | Physician |
| 476 | Physician Assistant |
| 841 | Physicians, Specialists |
| 426 | Physicists |
| 754 | Picture Framer |
| 790 | Pile Driver Operator |
| 75 | Pilot, Commercial Airline |
| 795 | Pipe Coverer and Insulator Worker |
| 105 | Pipefitter (alt. title for Plumber) |
| 804 | Pipeliner |
| 532 | Placement Director |
| 418 | Planner, Facilities |
| 241 | Planner, Urban Regional |
| 677 | Planter, Tree |

SORT

| SORT NO. | TITLE |
|---|---|
| 306 | Plasterer |
| 181 | Plastic Molding Machine Tender |
| 30 | Plastics Mold Setter |
| 736 | Platen Grinder |
| 680 | Plater (Electroplating) |
| 105 | Plumber |
| 489 | Podiatric Assistant |
| 473 | Podiatrist |
| 648 | Police, Specialists |
| 646 | Police Captain, Precinct |
| 649 | Police Inspector I |
| 71 | Police Officer |
| 649 | Police Officer II |
| 607 | Post Office Clerk |
| 548 | Postmaster |
| 757 | Pottery and Porcelain Thrower |
| 664 | Poultry Farmer |
| 99 | Power Plant Operator |
| 708 | Power Press Tender, Punch Press Operator IV |
| 829 | Power Reactor Operator |
| 646 | Precinct Police Captain |
| 164 | Press Operator, Cylinder |
| 725 | Press Operator, Engraving |
| 196 | Press Operator, Forging |
| 727 | Press Operator, Proof |
| 726 | Press Operator I, Offset |
| 836 | Print Developer, Automatic |
| 833 | Printer, Projection |
| 840 | Printer, Screen |
| 164 | Printing and Publishing Operatives |
| 723 | Printing Operators |
| 123 | Printing-Publishing Photoengraver |
| 304 | Prison Guard (alt. title for Correction Officer) |
| 363 | Private Detective |
| 461 | Private Duty Nurse |
| 493 | Probate Lawyer |
| 333 | Probation and Parole Agent |
| 21 | Production Clerk |
| 769 | Production Line Solderer |
| 771 | Production Line Welder |
| 295 | Production Manager |
| 124 | Production Tool Machine Tender |
| 528 | Professional Athlete |
| 563 | Program Aide, Group Work |
| 10 | Programmer, Computer |
| 423 | Programmer, Engineering and Scientific |
| 85 | Programmer, Tool |
| 407 | Programmer, Tool Numerical Control |
| 833 | Projection Printer |
| 823 | Projectionist, Motion Picture |
| 592 | Proof Machine Operator (Financial Institution) |
| 727 | Proof Press Operator |
| 581 | Proofreader |
| 345 | Property Appraiser |
| 269 | Property Manager |
| 501 | Prose, Fiction and Nonfiction Writer |
| 391 | Prosthetist/Orthotist |

SORT

| SORT NO. | TITLE |
|---|---|
| 288 | Psychiatric Aide |
| 455 | Psychiatrist |
| 244 | Psychologist |
| 446 | Psychologist, Clinical |
| 446 | Psychologist, Developmental |
| 446 | Psychologist, Educational |
| 446 | Psychologist, Experimental |
| 446 | Psychologist, School |
| 446 | Psychologist, Social |
| 446 | Psychologists, Specialists |
| 474 | Public Health Educator |
| 364 | Public Health Sanitarian |
| 209 | Public Relations Practitioner I |
| 708 | Punch-Press Operator IV (Power Press Tender) |
| 121 | Punch-Press Set-Up Operator |
| 529 | Puppeteer |
| 51 | Purchasing Agent |

SORT

# R

| SORT NO. | TITLE |
|---|---|
| 566 | Radiation Monitor |
| 114 | Radio and Television Repairer |
| 553 | Radio and Television Transmitter Operator |
| 249 | Radio Announcer (alt. title for Announcer) |
| 774 | Radio Electrician |
| 552 | Radio Operator Airline, Chief |
| 568 | Radiographer |
| 37 | Radiologic Technologist |
| 621 | Railroad Cook |
| 661 | Rancher, Livestock |
| 434 | Range Manager |
| 397 | Ranger, Park |
| 502 | Reader (Motion Picture, Radio and Television) |
| 502 | Reader/Writer, Screen |
| 57 | Real Estate Sales Agent |
| 57 | Realtor (alt. title for Sales Agent, Real Estate) |
| 23 | Receptionist |
| 556 | Recording Engineer |
| 380 | Recreation Activity Leader |
| 562 | Recreation Center Director |
| 464 | Recreational Therapist |
| 693 | Refinery Operator |
| 755 | Refinisher, Furniture |
| 116 | Refrigeration Mechanic |
| 35 | Registered Nurse |
| 765 | Reinforcing Metal Worker |
| 499 | Religious Education Director |
| 750 | Repairer, Appliance |
| 746 | Repairer, Automobile Body |
| 110 | Repairer, Automobile Clocks |
| 2 | Repairer, Bicycle |
| 838 | Repairer, Book |
| 384 | Repairer, Camera |
| 262 | Repairer, Central Office |
| 721 | Repairer, Coin Machine Service |
| 752 | Repairer, Electric Meter |
| 261 | Repairer, Electric Motor |

| SORT NO. | TITLE |
|---|---|
| 113 | Repairer, Electrical |
| 752 | Repairer, Electrical Instrument |
| 290 | Repairer, Electromedical Equipment |
| 748 | Repairer, Instrument (Telephone and Telegraph) |
| 718 | Repairer, Machine Maintenance |
| 803 | Repairer, Maintenance (Factory or Mill) |
| 722 | Repairer, Sewing Machine |
| 372 | Repairer, Shoe |
| 152 | Repairer, Small Gasoline Engine |
| 114 | Repairer, Television and Radio |
| 752 | Repairers, Electric |
| 237 | Reporter |
| 611 | Representative, Sales Promotion |
| 831 | Reproduction Technician |
| 292 | Research Analyst |
| 268 | Research Analyst, Market |
| 450 | Research and Planning Director, Employment |
| 492 | Research Assistant |
| 466 | Research Dietitian |
| 451 | Research Worker, Social Welfare |
| 603 | Reservations Agent (Air Transportation) |
| 447 | Residence Counselor |
| 768 | Resistance Machine Welder Setter |
| 46 | Restaurant Cook (alt. title for Hotel and Restaurant Cook) |
| 330 | Restaurant Host/ Hostess |
| 321 | Restaurant Manager |
| 65 | Retail Clothing Salesperson |
| 272 | Retail Florist |
| 544 | Retail Store Manager |
| 302 | Right-of-Way Agent |
| 739 | Ring Maker (Jewelry) |
| 707 | Rolling Mill Operator |
| 150 | Roofer |
| 625 | Room Service Clerk |
| 731 | Rope Maker, Ropewalk |
| 816 | Rotary Driller |
| 184 | Router Operator |
| 734 | Rug Cleaner |

# S

| | |
|---|---|
| 761 | Saddle Maker |
| 512 | Safety Clothing and Equipment Developer |
| 412 | Safety Engineer |
| 337 | Safety Inspector, Industrial |
| 409 | Safety Mines Engineer |
| 58 | Sales Agent, Automobile |
| 56 | Sales Agent, Insurance |
| 59 | Sales Agent, Office Machine |
| 57 | Sales Agent, Real Estate |

SORT

SORT

| SORT NO. | TITLE |
|---|---|
| 610 | Sales Agent, Securities |
| 386 | Sales Associate, Chemicals and Drugs |
| 361 | Sales Associate, Machinery |
| 53 | Sales Clerk |
| 611 | Sales Promotion Representative |
| 65 | Salesperson, Retail Clothing |
| 682 | Sandblaster |
| 364 | Sanitarian, Public Health |
| 32 | Sanitary Engineer |
| 636 | School Child Care Attendant |
| 461 | School Nurse |
| 446 | School Psychologist |
| 487 | School Superintendent |
| 515 | Scientific Photographer |
| 133 | Scraper Operator |
| 840 | Screen Printer |
| 502 | Screen Reader/Writer |
| 502 | Screen Writer |
| 338 | Screw Machine Operator, Product |
| 516 | Sculptor |
| 43 | Seamstress (alt. title for Custom Sewer) |
| 233 | Secondary School Teacher |
| 12 | Secretary |
| 550 | Secretary, Executive |
| 24 | Secretary, Legal |
| 40 | Secretary, Medical |
| 569 | Secretary, Social |
| 389 | Securities Analyst (alt. title for Stockbroker) |
| 610 | Securities Sales Agent |
| 78 | Security Guard (alt. title for Guard) |
| 437 | Seed Analyst |
| 672 | Seedling Puller |
| 428 | Seismologist |
| 587 | Seller, Tickets |
| 638 | Service Representative, Passenger (Air Transportation) |
| 63 | Service Station Attendant, Automobile |
| 543 | Service Station Manager, Automobile |
| 720 | Servicer, Cash Register |
| 720 | Servicer, Dictating-Transcribing Machine |
| 720 | Servicer, Statistical Machine |
| 775 | Servicer, Street Light |
| 794 | Servicer and Installer, Oil Burner |
| 720 | Services, Specialists |
| 513 | Set Decorator |
| 513 | Set Designer |
| 513 | Set Designer/Decorator |
| 822 | Sewage Disposal Worker |
| 320 | Sewage Plant Attendant |
| 137 | Sewage Plant Operator |
| 296 | Sewage Treatment Inspector (alt. title for Industrial Waste Inspector) |

| SORT NO. | TITLE |
|---|---|
| 764 | Sewer, Carpet |
| 43 | Sewer, Custom |
| 319 | Sewer, Drapery |
| 194 | Sewer Pipe Cleaner |
| 44 | Sewing Machine Operator |
| 722 | Sewing Machine Repairer |
| 175 | Shear Set-Up Operator |
| 100 | Sheet-Metal Worker |
| 671 | Shellfish Bed Worker |
| 273 | Shipfitter |
| 21 | Shipping and Receiving Clerk (alt. title for Clerk, Industry) |
| 792 | Shipwright |
| 372 | Shoe Repairer |
| 817 | Shooter (Petroleum) |
| 45 | Short Order Cook |
| 735 | Shuttler (Embroidery) |
| 96 | Sign Painter |
| [illegible] | Silk Screen Cutter |
| 435 | Silviculturist |
| 522 | Singer |
| 446 | Social Psychologist |
| 569 | Social Secretary |
| 451 | Social Welfare Research Worker |
| 226 | Social Worker |
| 452 | Sociologist |
| 793 | Soft Tile Setter |
| 215 | Soil Conservationist |
| 769 | Solderer, Production Line |
| 697 | Sorting Machine Operator (Canning and Preserving) |
| 554 | Sound Mixer (Studio Technician) |
| 647 | Special Agent |
| 374 | Special Education Teacher |
| 419 | Specification Writer |
| 365 | Speech and Hearing Clinician |
| 695 | Spinner |
| 525 | Sports Instructor |
| 249 | Sportscaster (alt. title for Announcer) |
| 145 | Spray Painter |
| 518 | Stage Director |
| 806 | Station Agent I (Railroad Transportation) |
| 772 | Station Installer and Repairer (Telephone and Telegraph) |
| 27 | Statistical Clerk |
| 424 | Statistician, Applied |
| 421 | Statistician, Mathematical |
| 310 | Steamfitter |
| 151 | Steel Worker, Structural |
| 13 | Stenographer |
| 570 | Stenotype Operator |
| 830 | Stereotyper |
| 810 | Stevedore I |
| 308 | Steward/Stewardess (alt. title for Flight Attendant) |
| 515 | Still Photographer |
| 763 | Stitcher, Sample |
| 594 | Stock Control Clerk |
| 389 | Stockbroker |
| 753 | Stone Setter (Jewelry) |

SORT

| SORT NO. | TITLE |
|---|---|
| 793 | Stonemason |
| 793 | Stoneworkers, Specialists |
| 775 | Street Light Servicer |
| 814 | Street Sweeper Operator |
| 140 | Structural Metal Fitter |
| 151 | Structural Steel Worker |
| 554 | Studio Technician (Sound Mixer) |
| 530 | Stunt Performer |
| 820 | Substation Operator |
| 487 | Superintendent, Schools |
| 558 | Supervisor, Casework |
| 756 | Supervisor, Diamond Finishing |
| 841 | Surgeon I |
| 457 | Surgeon, Oral |
| 280 | Surgical Assistant (alt. title for Operating Room Technician) |
| 574 | Survey Worker |
| 245 | Surveyor |
| 416 | Surveyor Assistant, Instruments |
| 801 | Surveyor Helper |
| 128 | Switch Tender |
| 217 | Systems Analyst |
| 413 | Systems Analyst, Electronic Data Processing |

SORT

# T

| SORT NO. | TITLE |
|---|---|
| 588 | Tabulating Machine Operator |
| 43 | Tailor (alt. title for Custom Sewer) |
| 696 | Tanker (Wood Preserving) |
| 256 | Tannery Worker |
| 176 | Tape-Control Machine Operator |
| 575 | Tape Librarian |
| 786 | Taper (Construction) |
| 531 | Tax Accountant |
| 493 | Tax Attorney |
| 76 | Taxi Driver |
| 567 | Taxidermist |
| 348 | Teacher, Art |
| 253 | Teacher, Dance |
| 254 | Teacher, Day Care |
| 236 | Teacher, Elementary School |
| 232 | Teacher, Kindergarten |
| 351 | Teacher, Music |
| 356 | Teacher, Physical Education |
| 233 | Teacher, Secondary School |
| 374 | Teacher, Special Education |
| 360 | Teacher, Trade and Technical |
| 387 | Teacher Aide |
| 350 | Teacher for the Blind |
| 815 | Technical Operator (Petroleum Production) |
| 263 | Technical Writer |
| 554 | Technician, Audio |
| 773 | Technician, Avionics |
| 609 | Technician, Career Guidance |
| 84 | Technician, Chemical Laboratory |
| 357 | Technician, Dental Laboratory |

| SORT NO. | TITLE |
|---|---|
| 81 | Technician, Electrical/ Electronic |
| 281 | Technician, Electrocardiograph |
| 275 | Technician, Electroencephalograph |
| 479 | Technician, Emergency Medical |
| 8 | Technician, Forestry |
| 408 | Technician, Heat-Transfer |
| 53 | Technician, Industrial Engineer |
| 741 | Technician, Instrument (various) |
| 404 | Technician, Instrumentation |
| 417 | Technician, Laser |
| 422 | Technician, Mathematical |
| 80 | Technician, Mechanical |
| 284 | Technician, Medical Record |
| 491 | Technician, Museum |
| 290 | Technician, Operating Room |
| 367 | Technician, Pest Control |
| 64 | Technician, Photographic |
| 831 | Technician, Reproduction |
| 554 | Technician, Studio |
| 411 | Technician, Welding |
| 468 | Technologist, Chemistry |
| 432 | Technologist, Dairy |
| 87 | Technologist, Food |
| 38 | Technologist, Medical |
| 469 | Technologist, Microbiology |
| 38 | Technologist, Nuclear Medicine |
| 37 | Technologist, Radiologic |
| 436 | Technologist, Wood |
| 748 | Telephone and Telegraph Instrument Repairer |
| 599 | Telephone and Telegraph Operator, Central Office |
| 772 | Telephone and Telegraph Station Installer and Repairer |
| 600 | Telephone Answering Service Operator |
| 73 | Telephone Operator |
| 114 | Television and Radio Repairer |
| 378 | Television Camera Operator |
| 19 | Teller, Bank |
| 709 | Tender, Furnaces and Heaters |
| 652 | Termite Exterminator |
| 793 | Terrazzo Worker |
| 651 | Tester, Automobile |
| 758 | Textile Patternmaker |
| 258 | Therapist, Art |
| 465 | Therapist, Corrective (Medical Services) |
| 278 | Therapist, Inhalation |
| 463 | Therapist, Manual-Arts |
| 299 | Therapist, Music |
| 247 | Therapist, Occupational |
| 248 | Therapist, Physical |

SOFT

SORT

| SORT NO. | TITLE |
|---|---|
| 464 | Therapist, Recreational |
| 770 | Thermal Cutter Hand I |
| 757 | Thrower (Pottery and Porcelain) |
| 603 | Ticket Agents |
| 587 | Ticket Seller |
| 300 | Tile Setter |
| 244 | Timber Management Specialist (alt. title for Forester) |
| 685 | Tin Recovery Worker |
| 782 | Tinter, Glass |
| 388 | Title Examiner |
| 89 | Tool and Die Maker |
| 260 | Tool Designer |
| 161 | Tool Grinder Operator |
| 124 | Tool-Machine Tender, Production |
| 174 | Tool Planer Set-Up Operator |
| 85 | Tool Programmer |
| 711 | Tractor Mechanic |
| 360 | Trade and Technical Teacher |
| 21 | Traffic Clerk (alt. title for Clerk, Industry) |
| 549 | Traffic-Safety Administrator |
| 614 | Trailer Rental Clerk |
| 807 | Train Braker |
| 129 | Train Engineer, Transportation (alt. title for Locomotive Engineer) |
| 524 | Trainer, Athletic |
| 667 | Trainer, Horse |
| 572 | Transcribing Machine Operator |
| 167 | Translator/Interpreter |
| 371 | Transmission Mechanic, Automobile |
| 553 | Transmitter Operator (Radio and Television) |
| 811 | Transportation Agent |
| 406 | Transportation Engineer |
| 377 | Travel Agent |
| 633 | Travel Guide |
| 677 | Tree Planter |
| 659 | Tree Surgeon |
| 266 | Tree Surgeon Helper |
| 131 | Truck Crane Operator |
| 613 | Truck Driver, Lunch |
| 126 | Truck Driver, Tractor/Trailer |
| 805 | Truck Driver Helper |
| 582 | Trust-Mail Clerk |
| 119 | Turret-Lathe Set-Up Operator |
| 573 | Typesetter-Perforating Operator |
| 571 | Typist-Clerk |
| 13 | Typist/Stenographer |

## U

| | |
|---|---|
| 527 | Umpire |
| 366 | Undertaker (alt. title for Funeral Director/ Embalmer) |
| 220 | Underwriter |
| 344 | Upholsterer, Automobile |
| 318 | Upholsterer, Furniture |
| 241 | Urban Regional Planner |
| 841 | Urologist |

| SORT NO. | TITLE |
|---|---|
| 632 | Usher |
| 805 | Utility Company Worker (alt. title for Meter Reader) |

# V

| | |
|---|---|
| 229 | Veterinarian |
| 458 | Veterinarian, Laboratory Animal Care |
| 662 | Veterinary Hospital Attendant |
| 210 | Veterinary Laboratory Assistant |
| 459 | Veterinary Livestock Inspector |
| 648 | Vice Investigator |
| 555 | Video Operator |
| 486 | Vocational Training Instructor |
| 547 | Volunteer Services Director |

# W

| | |
|---|---|
| 70 | Waiter/Waitress |
| 70 | Waiter/Waitress, Formal |
| 70 | Waiter/Waitress, General |
| 70 | Waiter/Waitress, Informal |
| 70 | Waiter/Waitress, Take Out |
| 70 | Waitress/Waiter, Formal |
| 70 | Waitress/Waiter, General |
| 70 | Waitress/Waiter, Informal |
| 70 | Waitress/Waiter, Take Out |
| 673 | Warden, Fire |
| 301 | Warden, Fish and Game |
| 61 | Watchmaker and Repairer |
| 14 | Water Research Specialist (alt. title for Hydrologist) |
| 136 | Water Treatment Plant Operator |
| 429 | Weather Forecaster (alt. title for Meteorologist) |
| 796 | Weatherboard Applier, Composition |
| 733 | Weaver, Hand Loom |
| 141 | Welder, Combination |
| 767 | Welder, Gun |
| 771 | Welder, Production Line |
| 768 | Welder Setter, Resistance Machine |
| 179 | Welding Machine Operator, Arc |
| 411 | Welding Technician |
| 557 | Welfare Caseworker, Child |
| 629 | Wig Dresser |
| 653 | Window Cleaner |
| 390 | Winemaker |
| 688 | Winery Worker |
| 604 | Wire-Photo News Operator |
| 399 | Wood Patternmaker |
| 436 | Wood Technologist |
| 697 | Woodworking Chipper |
| 698 | Woodworking Gluing Machine Operator |
| 120 | Woodworking Machine Operator |
| 501 | Writer, Copy |

| SORT NO. | TITLE |
|---|---|
| 501 | Writer, Editorial |
| 501 | Writer, Prose, Fiction and Nonfiction |
| 502 | Writer, Screen |
| 419 | Writer, Specification |
| 263 | Writer, Technical |
| 502 | Writer/Reader, Screen |
| 501 | Writers, Specialists |

# X

| | |
|---|---|
| 37 | X-Ray Technician (alt. title for Technologist, Radiologic) |

SORT

# Y

| | |
|---|---|
| 580 | Yard Clerk |
| 732 | Yarn Winder |

# Z

| | |
|---|---|
| 684 | Zinc Chloride Operator |
| 445 | Zoologist |

Appendix 4A

WOIS Products; 1977-78

Contents

Sample of "User Guide" in Index
3 Half Pages of Computer Questionnaire
Sample of "Scan" Materials

# USER GUIDE OF THE

# WISCONSIN OCCUPATIONAL INFORMATION SYSTEM

Darcy Mellen-Sullivan
User Services Specialist

Lois Radtke
User Services Specialist

WISCONSIN OCCUPATIONAL INFORMATION SYSTEM
Roger Lambert, Director

WISCONSIN VOCATIONAL STUDIES CENTER
Merle Strong, Center Director

September, 1977

# INTRODUCTION TO WOIS

WOIS is the Wisconsin Occupation Information System. It is a computerized retrieval system, designed to provide instantaneous information to students, counselors, instructors and other users. WOIS provides information on occupations, colleges, graduate schools, vocational-technical, proprietary and trade schools, financial aids, scholarships, military and career resources. This information is stored in a computer and may be acquired by using a computer terminal. The terminal, which is hooked up to a computer by telephone lines, allows one to communicate directly with the computer. It looks much like a regular typewriter, except the computer terminal has paper already in it and some of the keys have different symbols.

WOIS will give you information that is up to date and easy to use. WOIS can help you to make better decisions for yourself about occupations or colleges, but WILL NOT MAKE ANY DECISIONS FOR YOU. WOIS will quickly show you the results of choices you might make and allows you to change your mind about instructions you have given the computer. You can experiment and see what results different choices might bring.

WOIS is not meant to be the final or the only source of career information. Work closely with your counselor, talk to friends who have gone into certain careers or to colleges you are thinking about, and ask questions of people working in occupations that seem interesting. Get as much information from as many sources as possible. In this way, you will be helped to make decisions that are right for you.

# TERMS

1. Return Key - When you finish typing an instruction and are ready for the computer's response, you must press the RETURN KEY.

2. Printout - A printout is the computer paper on which the computer automatically prints its response to the commands the user instructs. Ask for a printout holder, which briefly explains what a printout contains.

3. Selector - Selectors are characterics describing schools or occupations.

4. Computer - Computers are the data banks in which information is stored on either tapes or discs.

5. Terminal - A computer terminal has a keyboard similar to a typewriter. It is hooked up to a computer by telephone lines and allows one to communicate directly with the computer.

6. Log-on - Logging on is the process of connecting a computer terminal with the main computer distribution center. The process involves using your code numbers and password. See your WOIS coordinator for instructions.

7. Log-off - When you are finished using the computer, it is good to signal the distribution center that you are finished so that you will not be wasting computer time which costs money.

8. Distribution Center - Wisconsin currently has 7 main centers which house WOIS tapes or discs on computers. The Distribution Center is the home of the computer to which your terminal is connected.

9. File - WOIS has 10 different sections or groups of information which can be used one at a time. You cannot work in a number of files at one time, although SOCC and NOCC do include references to other files in the WOIS system. See page 4 for a description of what each file contains.

10. DOT - DOT refers to the Dictionary of Occupational Titles which is a U.S. Department of Labor Publication containing a listing of over 38,000 job titles.

11. Down-Time - Occasionally the computer is "down" or not available for operation. This is usually due to maintenance or a failure in the equipment.

# COMPUTER COMMANDS

INFORMATION COMMANDS - Commands used to retrieve specific information.

P (Print) — If you want more information on an occupation or school, type P followed by the number of the occupation or school. The computer will PRINT out a job profile or, in the case of a school, a brief cost statement.

I (Itemize) — The letter "I" followed by a college or occupation code number tells the computer to ITEMIZE or print out all the numbers of characteristics which are true for an occupation or college.

I* (Itemize) — The I* command asks the computer to ITEMIZE or list all of the characteristics the computer has on a particular occupation or school. To use the I* command type I* followed by the number of the occupation or school.

I*_F_T_ — The I*_F_T_ command instructs the computer to limit the itemized list from the computer. To use the I*_F_T_ command type I* followed by the number of an occupation or school, then type T followed by another selector number. You will then get a limited list of occupational or school characteristics.

SEARCH COMMANDS - Commands used when in the process of narrowing the total list of occupations or schools in a particular file.

A (Add) — The letter A followed by a selector number instructs the computer to ADD or include all the occupations or schools which have this characteristic.

S (Subtract) — The letter S followed by a selector number instructs the computer to SUBTRACT or omit all the occupations or schools which have this characteristic.

E (Either/or) — The E_/_ or Either/Or command instructs the computer to add or include the occupations or schools which have at least one of the characteristics you asked for. To use the E command type E followed by a selector number, then press the slash(/) key followed by another selector number.

D (Delete) — The D command instructs the computer to DELETE or erase a search command that you have entered into the computer.

P (Print) — When 25 or fewer occupations or schools are left in the computer. To print them, type P and the list will be printed.

# OPERATING PROCEDURES

Before beginning to use the computer terminal, it is best to:

1. Discuss future plans with a counselor, parents or teachers. Find out what kinds of career information is needed. Look through the WOIS Index and make a list of the items of interest to put into the computer for exploration. This will save time and make searching easier. A Quickie Questionaire may be helpful to fill out.

2. After having thought carefully about what characteristics and items to search for in the computer, get acquainted with how to use the computer terminal. Using the computer effectively and efficiently requires knowledge of some of the basic rules and commands. The following two pages explain some of the basic operating procedures. The computer commands are explained on pages 7 and 8. You may also refer to the Computer Instruction Poster located near your terminal for instructions on how to use the computer commands.

STEP 1 - The first thing you need to do is "LOG ON". This means that you need to make a connection from your terminal to the computer center via telephone lines. See your counselor should you need to "LOG ON". (In most cases counselors do this step.)

STEP 2 - Decide which "command" you desire to give the computer. A "command" or instruction is a letter followed by a number or a letter by itself. See the computer commands on pages 7 and 8 for an explaination of the different commands.

STEP 3 - You give a command by typing the desired instruction on the terminal. The computer will be ready for a command when it types a question mark (?).

When the computer asks "Which File?", you must type one of the following file names.

| | | |
|---|---|---|
| SOCC | SAID | NONE - To indicate that you wish to stop using the terminal, type NONE. |
| SORT | AIDS | |
| COL2 | GRAD | |
| COL4 | CRES | |
| STET | OCCU | |

STEP 4 - After you type a command and are ready for the computer's response, you must press the RETURN key on the right side of the key board.

STEP 5 - When you complete your use of the terminal, check with your counselor as to whether or not you should "LOG OFF" and what procedure to use should it be necessary.

4. When the computer is ready for your next set of instructions, it will type a question mark - ? You then type the instruction letters (A,S,E,D,P,L or C) followed by the selector numbers which are important to you.

5. When you want to see a list of colleges, occupations, or scholarships which meet your qualifications (usually 25 or fewer), type "P".

6. If you want additional information about any college, occupation or scholarship on your list, use the code number with either the "P" or "I" instruction. (See page 5 & 6 for command descriptions)

7. When you are finished, type "Q".

# COMPUTER QUESTIONNAIRE

WOIS

Every occupation has certain characteristics: what kind of work is done, when and where it's done, what skills are needed to do it, etc. You have your own likes and dislikes when it comes to job characteristics: maybe you want to work in the arts, maybe you want to work outside, or maybe you want to work helping other people. WOIS can match your likes and dislikes with the characteristics of hundreds of possible jobs to find those that suit you best.

WOIS



You can search through the list of possible occupations in two ways:

1. If you don't know what occupation you might find interesting, start with the questionnaire at the bottom of the page.

2. If you have a specific job in mind and would like a list of occupations that are similar to the job you're interested in, start with the section immediately below, marked I*

## I*

To use the I* (I-star) command to find occupations, first turn to the "SORT/SOCC--STATE OCCUPATIONS BY TITLE" section of the white Index. Here you will find a list of 400 state occupations in alphabetical order. Choose the occupation you find particularly interesting. (If by some chance the occupation you want is not listed, you will have to go to the questionnaire below indicated by the ?)

You can now begin to use the computer terminal. You may have to get someone to start or restart it for you. Regardless, the computer terminal will print:

WHICH FILE?

You type:

SORT

and press the return key. Depending on the computer terminal you are using, the return key may be marked RETURN, CR, or NEW LINE. Whatever its name, it will always be located at the far right side of the keyboard. Be sure to

STATE OCCUPATIONAL SUMMARY INFORMATION READY

?

The computer always prints "?" when it's ready for you to type. Type I* and the number of the occupation you are interested in, for example

I*207

if you are interested in the occupation "Architect." The computer will respond with a list of characteristics that match that particular occupation. Put a check beside the characteristics that are most important to you. Now rank those characteristics from most important to least important, placing a "1" beside the characteristic most important, a "2" next to the characteristic second most important, and so on.

Now begin to enter the characteristics into the computer. Type the letter A followed by the number of the characteristic you marked most important, and press the return key. Do the same for the characteristic you marked second most important, third most important, and so on, typing A and then the number of the characteristic. Be sure to press the return key after entering each. The computer will respond to each entry with the number of occupations remaining in your search.

If you make a mistake while typing, you may use the "delete" command. Type D followed by the number of the command you wish to eliminate, then enter the correct command, typing A and the proper number.

When the computer indicates that 25 or less occupations remain, type P , and press the return key. The computer will respond with your list of occupations. If at the end of your search over 25 occupations remain, or if the computer responds with "NO OCCUPATIONS QUALIFY" at any point in your search, ask your counselor for assistance.

**Go to page 3 and find me !**

(Look for me in the middle of the page)

?

On the next page is a questionnaire that can help you find a list of jobs that relate to your occupational likes and dislikes. Follow the directions carefully for filling out the OCCUPATIONAL SEARCH QUESTIONNAIRE at the top of the next page and for using the computer terminal.

OCCUPATIONAL SEARCH QUESTIONNAIRE

Section:

**Areas of Work** A. Choose THREE of the following areas of work that you would be interested in and put the number of each in the spaces provided here.

E_____/_____/_____

_____
Rank Order

300...Art occupations

301...Occupations that involve mostly business relations

302...Occupations involving mostly clerical work

303...Occupations in counseling, guidance and social work

304...Occupations in trades, cooking and craft work

305...Occupations in the education and training of others

306...Occupations in laboring, helping and materials handling

307...Occupations in engineering, technical writing and drafting

308...Occupations in fine arts, theatre, music and related areas

309...Occupations in farming, fishing and forestry

310...Occupations in investigating, inspecting and testing

311...Occupations in legal work and law enforcement

312...Occupations in machine work

313...Occupations in managerial and supervisory work

314...Occupations in physical sciences and scientific research

315...Occupations in medicine and health

316...Occupations in merchandising, sales and publicity

317...Occupations in creative musical work (not entertainment)

318...Occupations in personal services to people and animals

319...Occupations in photography and communications (sending and receiving)

320...Occupations in transportation services

321...Occupations in journalism and creative writing

**Activities** B. Choose TWO of the following statements which are true for you and put the number of each statement in the spaces provided here.

E_____/_____

_____
Rank Order

I WOULD BE INTERESTED IN AN OCCUPATION WHICH:

202...Requires business contacts with people

203...Deals with scientific and technical materials and equipment

205...Allows creativity and developing own ideas

206...Requires working with others in close relationships, especially in trying to help others solve their problems

207...Deals primarily with equipment or machines and has little contact with others

# Wisconsin Occupational Information System

## INSTRUCTION GUIDE

## FOR USING

## WOIS SCAN SHEETS



PURPOSE OF THIS GUIDE

-- To give instructions on using the WOIS Personal Profile Worksheet.





-- To give instructions on using the WOIS Scan Sheets.

-- To provide short occupational descriptions on 400 occupations for initial

-- To provide a handy tool to record information on occupations of interest found in WOIS.

## THE WOIS PERSONAL PROFILE

Completing the WOIS Personal Profile Worksheet will allow you to compare your personal profile with the profiles of 400 occupations. A match will indicate an occupation worth considering. You will be able to look at pluses and minuses as you explore different career options.

You will need certain materials to develop your profile.

*A *WOIS Personal Profile Worksheet.*

*A *pen or pencil to record your choices.*

Instructions for Completing the Worksheet

To complete your Worksheet you will select occupational characteristics which are of interest to you. For example, some occupations are characterized by business relations with people; some by helping relations with people. In the "real world," occupations rarely offer both: you may have to choose. Making such selections will help you to think about some of the things which are important to you as you consider what you might do.

An occupational profile focuses on six areas into which work can be divided. You develop your personal profile on your worksheet using these same areas. These areas are described on the top of the next page. The large capital letters on your worksheet match the letters to the left of each area.

F FIELD: In classifying occupations, a WOIS field is a division of society's productive efforts into easily understood areas. For example, the health field is concerned with the physical health of people.

R RESPONSIBILITY: The WOIS level of responsibility of an occupation is determined by the degree of control persons have to decide about their own activities and about the goals and methods of the organization.

W WORKING LOCATION: The working location of an occupation indicates where the work is usually performed: inside, outside or both.

A ACTIVITIES: There are many activities involved in any occupation. This activities group describes 10 types which can be related to meaningfully.

P PHYSICAL DEMANDS: The physical demands of an occupation describe the working conditions, work setting or work requirements. They are stated in terms of "what a person doesn't want in a job" based upon "what must be done."

E EDUCATION AND SKILLS: The WOIS education levels are defined in terms of the minimum education usually required by employers. The WOIS skills indicate whether a higher than average level of verbal or math performance is required.

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As you complete your Personal Profile Worksheet, remember these points:

*This is not a test. It will not be graded. Instead, you will compare answers that are right, or seem right, for you to the profiles of 400 occupations.

*As you answer these questions, you should try to reflect your interests, values and beliefs about yourself against the characteristics.

*There is no time limit; but you should be able to complete the worksheet in about 20 minutes.

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

172

171 **F**

FIELD

The first entry you will make on your Personal Profile Worksheet will be in the space to the left of the "F".

F FIELD Scan Sheet # _____

In the box write the name of the field you wish to explore first. If you wish, you can select a different field later. Then, to the right of the "F" enter the number of the scan sheet. This number is listed after the name of the field in the list below. Choose only one.

Natural Things (Scan Sheet #1):

This field includes occupations in agriculture, environment and natural resources. They involve the industrial production, protection, preservation and development of natural things. Sample occupations are farmer, forester, food technician, sewer plant operator, and veterinarian.

Office and Sales (Scan Sheet #2):

This field includes occupations in business, offices, and government agencies. They involve management, marketing, selling, promotion and clerical work. Sample occupations are insurance sales agent, computer programmer, management trainee and typist.

Construction and Transportation (Scan Sheet #3):

This field includes occupations in construction and associated with transporting people and/or materials. Occupations are included which support these activities. Sample occupations are carpenter, truck driver and auto mechanic.

Arts and Communication (Scan Sheet #4):

This field includes occupations in fine arts, creative design, communication, communication media. Sample occupations are commercial artist, architect and interior designer.



Health (Scan Sheet #5):

This field includes occupations concerned with the physical health of people and those occupations which support this field. Sample occupations are physician, dietitian and inhalation therapist.

Industrial Production (Scan Sheet #6):

This field includes occupations concerned with producing material things and the management and development of methods of production. Sample occupations are drill press operator and industrial engineer.

Social Science and Service (Scan Sheet #7);

This field includes occupations concerned with teaching, serving, guiding and helping people. Sample occupations are short-order cook, secondary school teacher, lawyer and social worker.

Scientific (Scan Sheet #8):

This field includes occupations concerned with scientific areas. They involve research, development and dissemination of pure science. Sample occupations are chemist and laboratory assistant.

# WOIS Personal Profile Worksheet

**DIRECTIONS** (Matching Process)

1. Place your WOIS Personal Profile Worksheet on top of the WOIS Scan Sheet making sure that the two arrows match up ( ◀▶ )
2. Slide the Worksheet across moving to the right. Stop at each WOIS occupation to compare your profile with the profile for each occupation.
3. Record in the space below those occupation numbers where two (2) or more matches occur in addition to the Field match. Circle those where more than two occur. For sections A,P, and E, a match occurs only when all characteristics you choose appear on the scan sheet.

Record your WOIS number here:

| | | | |
|---|---|---|---|
| | | | |
| | | | |

4. After completing this matching process, begin your exploration by looking at the short descriptions in the rear of your instruction pamphlet. Look at those you circled first. After reading the short descriptions, go to Volume I, WOIS hardcover information and read more about those occupations of particular interest.

| | | |
|---|---|---|
| | F | FIELD Scan Sheet # _____ |
| | R | LEVEL OF RESPONSIBILITY |
| | W | WORKING CONDITIONS |
| ■ | A | WORK ACTIVITIES |
| ■ | P | PHYSICAL CONDITIONS |
| | E | EDUCATION LEVEL AND SUBJECT CAPABILITIES |

NAME_____ DATE_____

# WOIS Scan Sheet for Career Exploration

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Wisconsin Occupational Information System
Wisconsin Vocational Studies Center

*Use these Scan Sheets with a WOIS Personal Profile Worksheet.

*Fields begin on the following pages:


| Field # | Name | Page |
|---|---|---|
| 1 | Natural Things: Agriculture, Environment and Natural Resources | 1 |
| 2 | Business, Office, Sales | 3 |
| 3 | Construction and Transportation | 7 |
| 4 | Fine Arts, Design, Communications & Media | 10 |
| 5 | Health | 12 |
| 6 | Industrial Production | 14 |
| 7 | Social Science and Service | 20 |
| 8 | Science | 23 |

# WOIS Scan Sheet for Career Exploration

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Wisconsin Occupational Information System
Wisconsin Vocational Studies Center

Scan Sheet Number

**1**

**Natural Things: Agriculture, Environment and Natural Resources**

**Side 1**

| Occupation # | 1 | 4 | 5 | 6 | 7 | 8 | 32 | 41 | 95 | 136 | 137 | 194 | 210 | 212 | 214 | 215 | 222 | 229 | 241 | 244 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Occupation Title | BUTTERMAKER | FARM EQUIPMENT MECH. | CHEESEMAKER | LOGGER | NURSERY WORKER | FORESTRY TECHNICIAN | SANITARY ENGINEER | FOOD TECHNICIAN | IRRIGATOR, SPRINKLER SYSTEM | WATER TREATMENT PLANT OPERATOR | SEWAGE PLANT OPERATOR | SEWER PIPE CLEANER | VETERINARY LAB ASS'T. | HORTICULTURIST | AGRICULTURAL ENGINEER | SOIL CONSERVATIONIST | ANIMAL SCIENTIST | VETERINARIAN | URBAN REGIONAL PLANNER | FORESTER |
| F | NATURAL THINGS: AGRICULTURE, ENVIRONMENT AND NATURAL RESOURCES | | | | | | | | | | | | | | | | | | | |
| R | 2 | 2,3 | 2 | 1 | 1 | 2 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| W | I | B | I | O | B | B | B | I | O | B | B | B | I | I | B | B | B | B | I | B |
| A | 46 48 48 48 46 56 57 45 46 48 46 48 45 45 57 03 45 23 01 45 | 8 9 9 9 8 8 8 7 4 5 8 5 3 5 7 | | | | | | | | | | | | | | | | | | |
| P | LCTLSE LCTLT LCELE HCSHE CTLT LT HCTL LCTHE CTHE CTHE CSLE CTLE CTLE CVHE CSE | E E E SE SE SE SE E E SE E | | | | | | | | | | | | | | | | | | |
| E | R N N N N M M M N M R N M M M M M M M M M | V A A A V A V A V A V A V A V A V A V A V A V A V A V A | | | | | | | | | | | | | | | | | | |

(Continued Next Page)

Appendix 4B

WCIS Marketing Material, 1977-78

Contents

WOIS Printout
Return Mailer
Newspaper Article

# WOIS PRINTOUT

WISCONSIN'S OCCUPATIONAL INFORMATION SYSTEM

USER LIST IS GROWING! As of March 7, 1978, 295 WOIS User sites are providing information on 2 and 4-year colleges nationwide, 1200 occupations, career resources, financial aids, military occupations and graduate schools. DOES YOUR SCHOOL OR AGENCY HAVE THE WISCONSIN OCCUPATIONAL INFORMATION SYSTEM? There is still time to obtain services. New users beginning April 1, 1978 are charged a part year user fee. For details on this and/or a demonstration of WOIS you may contact one of the following WOIS User Services persons:

NORTHWEST WISCONSIN

Dean Wiseman, Coordinator
Wis. Voc. Studies Center
UW-Madison 608 - 263-4444
Keith Lehman
CESA 2 Office 715 - 426-3681
Monika Johansson
UW-River Falls 715 - 425-3582
Mary Flynn
CESA 6 Office 715 - 723-0341

SOUTHWEST WISCONSIN

Lois Voigt, Coordinator
Wis. Voc. Studies Center
UW-Madison 608 - 263-5053
Eric Volden
UW-Lacrosse 608 - 785-8014
Diane Hutchison
CESA 14(North) 608 - 987-3639
Mary Thompson
CESA 14(South) 608 - 907-3635
Jeff Milton
CESA 12 Office 608 - 762-5513

NORTHEAST WISCONSIN

Darcy Mellen-Sullivan, Coordinator
Wis. Voc. Studies Center
UW-Madison 608 - 263-4748
Richard Hummell
CESA 10 Office 414 - 892-4914
Patricia Maguire
CESA 9 Office 414 - 497-3755
William Fonferek
CESA 3 Office 414 - 855-2114

SOUTHEAST WISCONSIN

Mark Anderle, Coordinator
Wis. Voc. Studies Center
UW-Madison 608 - 263-4861
Barbara Thomson
UW-Whitewater 414 - 472-1325
Gary Lauerdorf
CESA 13 414 - 324-4461

If the above persons cannot provide all the help you need, contact Dr. David Caulum (608 - 263-2725) or Dr. Roger Lambert (608 - 263-2704) at the address below.

List of Current New Users

| | | | |
|---|---|---|---|
| Big School | | WIN | |
| Delavan | Washington (Two Rivers) | Menasha | Rock County Manpower Department |
| Mayfield | | Milw. South | |
| Superior | Potosi | | Milw. Area Indian Manpower Council |
| Northland Pines (Eagle River) | Whitehall | Others | |
| Phelps | Columbus | Milw. Career Information Center | Milw. County Manpower Council - CETA |
| Iron | Dodgeland | | |
| Spring | Edmonds | Northwest Wis. CAA | |
| Marinette Catholic Central | Rockford | Great Lakes Inter-Tribal Council | |
| Lenox | Brodhead | Northeast Wis. CAA | |
| Coleman | Johnson Creek | Indianhead CAC (CAP - SHAWE) | |
| Shell Lake | Waterford | CAP IMPACT VII (Turtle Lake) | |
| Turtle-Strum | Union Grove | West Central Wis. CAA | |
| Neillsville | Homestead | Wisconsin Farmers Union | |
| Colby | Grafton | Western Dairyland EOC | |
| Washington Island | Job Service | CAP - Stevens Point | |
| Valders | Hayward | ADVOCAP - Oshkosh | |
| Hustisford | Marinette | ADVOCAP - Neenah | |
| Plymouth | Shawano | ADVOCAP - Winnebago | |
| Howards Grove | Balsam Lake | ADVOCAP - Fond du Lac | |
| Kiel | Ellsworth | WINNE-FOND Consortium | |
| Random Lake | Menomonie | Central Wis. CAP | |
| Kohler | Chippewa Falls | WOW Consortium - Waukesha | |
| St. Joseph's Academy (Green Bay) | Friendship | | |
| Horicon | | | |

WOIS

## WISCONSIN OCCUPATIONAL INFORMATION SYSTEM

**Telephone: (608) 263-2725**

WISCONSIN VOCATIONAL STUDIES CENTER, UNIVERSITY OF WISCONSIN-MADISON
321 Education Building, Box 49, Madison, Wisconsin 53706 Tel: (608) 263-3696



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## Job Service

Madison
Portage
Watertown
Beaver Dam
Lancaster
LaCrosse
Adams
Marshfield
Mauston
Stevens Pt.
Wis. Rapids
Ashland
Superior
Spooner
Grafton
West Bend
Waukesha
Milw. Central
Milw. North
Milw. South
Skill Center
Beloit
Janesville
Elkhorn
Monroe
Wausau
Rhinelander
Medford
Eau Claire
Menomonie
Racine
Kenosha
Oshkosh
Berlin
New London
Appleton
Fond du Lac
Green Bay
Oconto
Menasha
Manitowoc
Sheboygan

### CAP/CETA

West CAP-Glen-
Glenwood City
White Hall
Washington Is.
Madison Skilled
Jobs f. Women
Milw.-Coop. Career
Development Ctr.

## Win

Madison
Watertown
Lancaster
LaCrosse
Adams
Marshfield
Mauston
Stevens Pt.
Wis. Rapids
Ashland
Superior
Hayward
Grafton
West Bend
Waukesha
Milw. Central
Milw. North
Milw.
Beloit
Janesville
Elkhorn
Monroe
Wausau
Rhinelander
Medford
Eau Claire
Barron
Menomonie
Racine
Kenosha
Oshkosh
Berlin
Appleton
Fond du Lac
Green Bay
Marinette
Manitowoc
Sheboygan

### DVR/Others

Green Bay State
Reformatory GB
Waukesha WAK
Madison DVR MACC
Madison Regional
Office DVR MACC

### Universities

UW-Superior SUP
UW-EauClaire MACC
UW-Oshkosh MACC
Viterbo Coll. LAX
UW-La Crosse LAX
UW-Fox Valley LAX

## High Schools

| | |
|---|---|
| Drummond | RF |
| Hayward | RF |
| Mellen | RF |
| Merrill | LAX |
| Tomahawk | LAX |
| Mercer | RF |
| Rhinelander | RF |
| Elcho | RF |
| Rib Lake | |
| Bonduel | GB |
| Shawano | |
| Clear Lake | RF |
| Cumberland | RF |
| Ladysmith | RF |
| Amery | RF |
| Chetek | RF |
| Birchwood | RF |
| New Richmond | RF |
| Ellsworth | RF |
| Menominie | RF |
| Somerset | RF |
| Glenwood City | RF |
| River Falls | RF |
| Spring Valley | RF |
| Baldwin-Woodville | RF |
| Cadott | RF |
| New Auburn | RF |
| Mondovi | RF |
| Bloomer | RF |
| Fall Creek | LAX |
| Lake Holcombe | RF |
| Chippewa Falls | RF |
| Owen-Withee | |
| Wittenberg-Birnamwood | |
| Neenah-Shattuck | GB |
| Armstrong | GB |
| Little Chute | GB |
| Little Wolf | GB |
| Menasha | GB |
| Kimberley | GB |
| Denmark | GB |
| De Pere | GB |
| Gibralter | GB |
| Preble | GB |
| Southwest | GB |
| Sturgeon Bay | GB |
| Kewaunee | GB |
| Luxemberg-Casco | GB |
| West De Pere | GB |
| Southern Door | GB |
| Green Bay East | GB |
| Green Bay West | GB |
| Sevastopol | GB |
| Sheboygan Falls | GB |
| Lincoln | GB |
| Tomah | LAX |

## High Schools

| | |
|---|---|
| Black River Falls | LAX |
| Logan | LAX |
| Central | LAX |
| Sparta | LAX |
| Reedsburg | |
| Royall | LAX |
| Cambria | PTG |
| Rio | PTG |
| Poynette | PTG |
| Lodi | PTG |
| Watertown | WTR |
| Beaver Dam | WAK |
| Lomira | |
| Lancaster | WTR |
| Madison West | MACC |
| Oregon | LAX |
| Sun Prairie | MACC |
| Deerfield | WTR |
| Madison East | MACC |
| LaFollette | MACC |
| Jas. Madison Memorial | MACC |
| McFarland | MACC |
| Belleville | LAX |
| Stoughton | |
| Hamilton | WAK |
| Arrowhead | WAK |
| Brookfield East | WAK |
| Mukwonago | WAK |
| Oconomowoc | WAK |
| New Berlin | WAK |
| Beloit Memorial | WAK |
| Jefferson | |
| Ft. Atkinson | WTR |
| Craig | LAX |
| Parker | LAX |
| Williams Bay | WTR |
| Bradford | KEN |
| Tremper | KEN |
| Reuther | KEN |
| Whitewater | |
| Delavan | WTR |
| Riverside | |
| Washington | |
| S. Milwaukee | WAK |
| Port Washington | WAK |
| Wauwatosa West | |
| S. Division | |
| Portage | |
| Pardeeville | |
| Westfield | |

### Elementary Schools

| | |
|---|---|
| Lac du Flambeau | RF |
| North Lakeland | RF |
| Southern Door | GB |

## VTAE Districts

**Blackhawk**
2*Janesville WTR
2*Beloit Campus
Decatur Center

**Fox Valley**
Oshkosh
Appleton

**Gateway**
Kenosha
Racine
Elkhorn

**Lakeshore**
Cleveland MACC

**Mid-State**
Wis. Rapids
Marshfield
Stevens Pt.

**Milwaukee**
3*Central Campus
2*South Campus
2*North Campus
2*West Campus

**Moraine Park**
Fond du Lac
Beaver Dam
West Bend

**Nicolet**
Rhinelander

**North Central**
Wausau
Antigo

**Northeast**
Green Bay GB
Marinette GB
Sturgeon Bay

**Southwest**
Fenimore

**District 1**
Eau Claire

**District 4**
2*Madison
Portage
Fort Atkinson
Watertown
Reedsburg
Stoughton

**Waukesha**
Pewaukee WAK

**Western**
La Crosse

**Indianhead**
Ashland
Superior
Rice Lake RF
New Richmond RF

*denotes multiple sites at one campus

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University of Wisconsin-Madison
321 Education Building, Box 49
Madison, WI 53706

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DIRECTIONS: Please complete the information on this side, folding appropriately, staple shut and mail (no stamp required).

Your Name _____

Position _____

Institution _____

Address _____

_____

Phone _____

Please Check One of the following:

_____ Thank you for the information; we are already a user of WOIS.

_____ We would appreciate your contacting us to set a time and date for a demonstration of WOIS products so we can learn more about it. (Please mark one or both: _____ Computerized Version, _____ Manual Version.)

*A demonstration places you under no obligation. The non-computerized WOIS demonstration takes approximately one hour; the computerized WOIS demonstration takes approximately two hours. In addition, arrangements can generally be made for your use of WOIS for a short (one to two week) trial period at no cost.

*Most demonstrations will be arranged sometime this summer. If you have special need for an earlier date, please indicate it below.

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# WOIS Services Aid High School Grads Career Hunt

By Ted Roelofs

Sudden entry into the job market following graduation from high school can be a shock, but Kiel High School students now have access to a service which should help ease the job hunting jolt.

It is called the Wisconsin Occupation Information System (WOIS), and Kiel is one of ten school districts in CESA 10 now participating in the state wide program.

The purpose of WOIS is to provide students with information about the range of careers they are interested in, including details such as employment outlook, salary or wage ranges, educational requirements and resource persons to contact for possible employment. It also lists available institutions in the state which provide education for a given career, and catalogues a range of four year colleges and universities, state educational and training schools, and vocational-technical and hospital schools.

Kiel High guidance counselor Merlyn Duerst is enthusiastic about the new career service. "This gives the student a chance to make choices," Duerst said. "It allows them to search themselves and make value judgments, and be involved in the decision making process about their future job or college."

This is the first year for WOIS at Kiel High, and the service is mainly being utilized by juniors. The guidance department intends, however, to expand the program to include freshmen sophomores and possibly eighth graders.

### "Needed Help"

Duerst said Kiel's decision to join the service was a direct result of the senior survey. According to Duerst, "We had a lot of seniors tell us that they felt they needed help" finding jobs and making career choices. "Some seniors told us they wish they had this program earlier."

The director of the program for the CESA 10 district is Richard Hummel of Plymouth. Hummel believes the WOIS service offers a unique opportunity to vocation-oriented students. "This is one career program that is not 99 percent college oriented," Hummel said.

Duerst agrees that the vocational aspects of WOIS are important for the Kiel District. "Fifty percent of our students go directly from high school into the job market," Duerst said. "We have to try to serve our population."

Students use a personal profile worksheet to help them select a prospective occupation, checking for working conditions, level of responsibility, work activities, physical conditions and educational level required in the occupation. If a student matches in at least two of these categories, he turns to a hardcover resource manual which contains detailed information relating to the career or institution of higher learning chosen by the student.

Individual job categories are indexed, and the student looks up each occupation by a code number. Under the listing for pharmacist, for example, the WOIS resource manual describes the occupation, gives the average salary for a pharmacist in Wisconsin ($14,000), the employment outlook for 1980, (good) and lists the educational requirements for entry in this field (graduate from a five year pharmacy school, complete an internship program and pass the state exam.)

Similar listings are provided for occupations ranging from carpenter, welder, beautician to journalist.

In addition to the career listings, WOIS provides updated information on a myriad of available financial aids.

### Lists Financial Aids

"I don't know of anything that gives as many financial aid listings as this," Duerst said. "There are many scholarships through unions and corporations that students just aren't aware of."

Although other districts are using a computer hook-up at extra cost for their WOIS program, the Kiel District uses the manual system.

Duerst is pleased with the system, and he says that eight to ten students can be served at one time at the high school.

The cost to the district for sharing the WOIS service is 45 cents per student. Other funding for the program is through the United States Department of Labor, Wisconsin Board of Vocational and Technical Adult Education, Governors' Manpower Council, the Department of Industry, Labor and Human Relations and the University of Wisconsin-Madison.

Another facet of WOIS Duerst likes, is its relative simplicity. "We can show a kid how to use this in just 20 minutes," he said. "After that, he is on his own."

WOIS - a good way for a student to get his feet wet while still in high school, and to learn how to stay afloat in the competitive job market after graduation.

Reprinted from the Kiel Tri-County Record, Thursday, March 23, 1978. Permission from Mr. Earl Mathes, Editor 4-14-'78

Appendix 4C

## WOIS User Conference Participants

Keith Lehman
CESA 2 Office

Nancy Herbison
Tomahawk High School

Bill Fonferek
CESA 3 Office

Charlotte Buckbee
Shawano High School

Jack Allen
Clear Lake High School

Monika Johannson
UW-River Falls

Mary Flynn
CESA 6 Office

Jack Rokser
Fall Creek High School

Dale Staebell
Eau Claire Job Service

Helen Brown
Menasha High School

Pat Maguire
CESA 9 Office

Carl Lackey
East & Southwest High Schools
Green Bay

Dick Hummell
CESA 10 Office

Jerry Yatchak
Mercer High School

Mary Lou Bauer
Kenosha Public Schools

Sarah Rankin
LaFollette High School
Madison

Dick Bixby
Sheboygan Falls High School

Bob Kolsky
Ladysmith High School

Dewey Mullikin
Mondovi High School

Tom App
Little Wolf High School
Manawa

Linda Draeger
Lakeshore Technical Inst.
Cleveland

Eric Volden
UW-LaCrosse

Dennis Lee
Black River Falls High School

Jeff Milton
CESA 12 Office

John Weger
Royall High School
Elroy

Gary Lauersdorf
CESA 13 Office

Molly DeHaven
Beaver Dam High School

Mary Thompson
CESA 14 Office

Diane Hutchison
CESA 14 Office

Don Steckbauer
Stoughton High School

Mary Holland
Madison Memorial High School

Carolyn Lorang
Madison West High School

Doug Davies
Lancaster High School

John Feldner
McFarland High School

Bev Pieper
Madison East High School

David Soderberg
Parker High School
Janesville

Barb Thomson
UW-Whitewater

Al Logan
Darien-Delavan High School

Tom Tate
Sun Prairie High School

Jerry Meysembourg
Division of Vocational Rehab.

Barbara White
Whitewater HIgh School

Jack Miller
Viterbo College

Robert Willett
Mauston Job Service

Gary Dornfeld
Dodgeland High School
Juneau

Mike Livingston
Lancaster Job Service

Roger Wetzel
Oregon High School

Bob Vicent
Fort Atkinson High School

## WOIS Staff

Darcy Mellen-Sullivan

Lois Voigt

Mark Anderle

Dean Wiseman

David Caulum

Carl Grady

Peter Oemichen

Ellen Cray

Jim Augustin

Tom Nagel

## WOIS User Conference Report

TO: WOIS Staff, WOIS Coordinators

FROM: Lois Voigt

DATE: April 28, 1978

WOIS h ld its first annual day-long User Conference on March 14, 1978, at the University Bay Center in Madison. Approximately 60 people attended the Conference, including all WOIS Staff and at least two user representatives from nearly every CESA District around the state. High schools, universities, Job Service offices, CAP agencies and VTAE schools were represented whether they were manual-only or manual and computer users. The main purpose of the conference was for users to give the WOIS staff feedback on what they liked or disliked about the system and to share ideas with other users as to how WOIS is used in their respective setting.

Most comments on the evaluation of the conference were very favorable. All indicated that it was well worth the time and effort involved and would like to see the User Conference repeated again next year. Most of the day was spent in five different, small feedback-rap groups. The topics discussed in the five different groups were: 1) contents of the Financial Aids and STET files, 2) selectors in the files and occupational files, 3) distribution networks, cost and funding, evaluation processes, inservice, 4) methods of use, promoting awareness, locating materials, and 5) evaluation of all user materials in terms of practicality, usability and coherency. The WOIS staff received excellent comments and suggestions from the users present. An attempt is being made to incorporate as many of these helpful hints as possible.

Some of the strong features of WOIS as stated by the users in attendance at the conference include the following: 1) The volume of information and structure of the SOCC file are a very effective tool. 2) "WOIS is the best thing of its kind ever provided anywhere in the state." 3) In terms of materials, most agree that the Printout Folder, the computer Commands Poster and the Computer Index need little or no revising. 4) WOIS helps counselors save a lot of time. 5) Some view the Computer Questionnaire and SCAN exercise as good tools for Career Ed and as learning experiences for understanding the process of career decision-making. 6) The new block of information in the STET file which is called UNIQUE SCHOOL STRENGTHS (provided by school) is great.

Listed on the back are some suggestions for improvement of WOIS from users who attended the conference.

1. Make the two red volumes of the printed version easily distinguishable from each other.
2. Add more occupations to SOCC file.
3. Rewrite SCAN system in a simpler fashion.
4. Link WOIS with commercially prepared interest inventories on the market.
5. Add school programs to the Selector Newspaper.
6. Improve organization of the STET Volume in the printed version.
7. Put back the form letter in the CRES file.
8. COL4 in the printed version needs to be made a lot less confusing.
9. AIDS file released in November comes out too late for June graduates.
10. Index tabs and soft cover volumes are not wearing well.
11. Include tuition and fees for out-of-district category in STET file.
12. GRAD file should be available in the manual volumes.
13. Implement prescriptive t aching packages for handicapped use of WOIS.
14. Add school placement statistics.
15. Responsibility level selector in SCAN is vague.
16. Don't use negative wording in the physical requirements.
17. Create an advanced SCAN for users with considerable work history.
18. Design both materials and content with more attention to the handicapped.
19. Make questionnaires only one page in length.
20. Guidance departments in high schools which share the terminal with math or other departments need more time.

Appendix 5 A

Comments on User Logs

SUMMARY (K-12)
March

| | |
|---|---|
| CESA # 2 | |
| 1. NOCC #1034 sound mixer - C)L4 ref. wrong; uses 114 which is plant pharmacology. GRAD #1259 Guidance & Counseling - U.W.-Stout not listed GRAD #571 Vet. Medicine - U of M not listed. | Tomahawk High School |
| 2. Numerous letters of inquiry are being returned. The addresses given in WOIS are outdated! | Rib Lake High School |
| CESA # 6 | |
| 1. We are really just getting started! | Colby High School |
| 2. Printed material was used by students who were on terminal. | Cadott High School |
| CESA # 8 | |
| 1. That new computer questionnaire (4 pgs.) is excellent. | Menasha High School |
| CESA # 9 | |
| 1. Our WOIS/GIS terminal is slowing down in use, probably due to earlier use and the end of the school year is only about 40 days away (school days). Else all is well. Still, it is a little hard to get some people to sign in. | Preble High (A/V Dept.) |
| CESA # 10 | |
| 1. We just got our printed materials in March and did use it for our career studies with grade 10. | Kohler |
| CESA # 12 | |
| 1. Sophomores have little free time due to Dr. Ed. thus, in our schedule have little opportunity to use computer. Kids upset that it breaks down so often. | Pardeeville High |
| 2. We are using CVIS terminal on a free trial basis from March-June. | Reedsburg |
| CESA # 13 | |
| 1. The computer (terminal) is available for WOIS users for one 50-minute period a day. | Watertown High School |

CESA # 18

| | |
|---|---|
| 1. Probably a fourth required printed materials to get started. The rest have used the materials before. Many took them home and used the computer the next day. | Whitewater High School |
| 2. The printed material was used in Distributive Education classes. | Delavan-Darien High School |
| 3. We will be receiving our terminal very soon. Then our usage will soar, but 'til then we will not be using it. | Craig High School |

CESA # 19

| | |
|---|---|
| 1. Career Center is opening April 17. | Wauwatosa West High School |

SUMMARY (Other Sites)
March

| | |
|---|---|
| CESA # 4 | |
| 1. Les McAllen is no longer employed by Job Service. Is there any instruction booklet to accompany the WOIS? | Job Service - Polk Co. Balsam Lake |
| CESA # 7 | |
| 1. We will be implementing WOIS during our Summer Youth Work Experience Program beginning in June. | CAP Services, Inc. |
| CESA # 10 | |
| 1. Hopefully we will get a self-service system soon. | Manitowoc Job Service |
| CESA # 12 | |
| 1. I plan to be using the program later this year. | MATC-Reedsburg |
| CESA # 15 | |
| 1. Explained WOIS to 2 Ext. Adult Counselors. | Monroe Job Service |
| CESA # 18 | |
| 1. Only have printed material-very good for photo-copy and take home study. | Job Service/Elkhorn |
| 2. Usage affected cause this coordinator was un-available for substantial part of month. | Racine WIN |
| CESA # 19 | |
| 1. Hope to use system more with students during the summer months. | Job Service North-Milw. |
| 2. Clients not contacted as planned! | Milw. Pub. Service Careers |
| 3. If any WIN projects are using this system please let me know! | Milw. North WIN |
| 4. We used the printed materials extensively in March to develop a collection of college catalogs and a career pamphlet file. | MATC-West Library |
| 5. At this time I do not have the time to coor-dinate. | Grafton-Job Service |

SUMMARY (K-12)
April

CESA # 1

1. We introduced the profile sheets to all the juniors. They are now starting to come in and use the printed materials. — Park Falls High

2. Computer out of order last of the month. — Mellen

3. Involvement is improving! Records will improve — Drummond

CESA # 2

1. *9th graders were given 2 day WOIS Unit.... Total of 11,250 minutes — Phillips High School

CESA # 3

1. Students haven't used much, maybe because it's new. — Crandon High School

CESA # 5

1. Since we received the WOIS in April we have very little time to organize its usage. It was used — Prescott H. S.

CESA # 7

1. Not used as no teacher was having a unit on the material. We do not have computer terminal. — Wittenberg-Birnamwood

CESA # 12

1. Students often work in groups on computer. Time used is normally maximum when the computor is operational. Breaks down to often. — Pardeeville High School

CESA # 13

1. 1 hour usage per day for WOIS work. — Watertown High School

2. We could be more accurate if we had the "user sign-up sheets" a few days before the first of each month. — Beaver Dam Senior H. S.

CESA # 17

1. Our WOIS should be installed this month. — Craig Sr. H.S., Janesville

CESA # 19

| | |
|---|---|
| 1. All counselors heavily involved in programming for next school year. | South Division, Milw. |
| 2. So far so good, seeing we are new users. | Homestead High School |

SUMMARY (Other Sites)
April

CESA # 3

| | |
|---|---|
| 1. We hope to start promoting use of the WOIS next fall. | UW Center - Marinette |

CESA # 12

| | |
|---|---|
| 1. I have not had time to administer WOIS. | MATC-Reedsburg |

CESA # 15

| | |
|---|---|
| 1. No use--we do not have this system--please discontinue mailings. | Voc. Adult Ctr., Stoughton |
| 2. Job outlook too rosy--descriptions less than accurate for this area--reading level too high--format too computerized in lingo for users. | Skilled Jobs for Women, Inc |

CESA # 16

| | |
|---|---|
| 1. Have found many wrong occupational numbers regarding STET file when you run off SOCC & they state other information in WOIS. | Waukesha-DVR |

CESA # 19

| | |
|---|---|
| 1. Are any WIN projects using this system? | WIN MOD B, Milw. |
| 2. Most applicants intersted in summer employment. | MAAIMC, Milwaukee |

SUMMARY (K-12)
MAY

CESA # 1

| | |
|---|---|
| 1. For month of May only--materials were not complete for use. | Ondossagon School |
| 2. Expect to start using in September, 1978. Was approved subject to budget considerations by the Curriculum Committee yesterday. (May 30, 1978) | Superior Senior H.S. |
| 3. Much better records will be maintained 78-79. (I hope) | Drummond |

CESA # 2

| | |
|---|---|
| 1. I can only report those who sign up on user sheets for computer. I do not know how much time is used on printed materials. | Rhinelander |
| 2. The person came and gave it to our junior English students in May. I have not seen any of the materials. He may have left them with the English instructor. | Prentice High School |
| 3. I use the computer a lot. It is very helpful to me. | Phelps |
| 4. We have only trained 15 students in May to be able to use this system with other students next Fall. We just purchased the printed materials this Spring. | Three Lakes High School |

CESA # 3

| | |
|---|---|
| 1. Sign up sheet lost; time listed is only actual time known. | Bonduel High School |

CESA # 7

| | |
|---|---|
| 1. Occasional use by pupils from different grades. No time kept. | Wittenberg-Birnamwood High School |

CESA # 9

| | |
|---|---|
| 1. The year has come to an end, and WOIS-GIS has been a definite aid to most of the Preble student body. We hope we will be able to continue this fine service next year. | Preble IMC |

CESA # 10

| | | |
|---|---|---|
| 1. | Hope to use this in group guidance next year. | Howards Grove |
| 2. | The WOIS was purchased too late into the school year for our staff to put the system to its full potential. | (Two Rivers) Washington High School |
| 3. | Reaction of students seems to be very positive. | Kiel High School |
| 4. | Freshman class completed Personnel Profile Worksheet during a 55 minute class period. | Stockbridge High School |

CESA # 11

| | | |
|---|---|---|
| 1. | Just received materials recently. | Arcadia |

CESA # 12

| | | |
|---|---|---|
| 1. | Most students are more aquainted with other Career Center information. | Westfield High School |
| 2. | The WOIS materials are hard to use and visually unattractive. | Rio |
| 3. | Material received far too late in year to institute meaningful program. Plans are to start in Fall with full in-service and usage for students. | Fall River High School |

CESA # 13

| | | |
|---|---|---|
| 1. | We received this just before school was out, so have nothing to report at this time. | Horicon |

CESA # 14

| | | |
|---|---|---|
| 1. | 7th, 8th and 9th grades were taught how to use the system as a group, then individually during the summer they can come to school to read all of the file numbers that they recorded. | Benton High School |

CESA # 16

| | | |
|---|---|---|
| 1. | Computer was down from May 24 through May 31st. | Mukwonago |

CESA # 17

| | | |
|---|---|---|
| 1. | Jim, we still are not pluged into the new terminal. Have not used the computer upstairs enough because its location. | Parker-Janesville |
| 2. | Extremely useful and valuable tool. | Johnson Creek |
| 3. | We expect our terminal next week. Then usage will begin. | Craig H.S. Janesville |

CESA # 18

| | | |
|---|---|---|
| 1. | No WOIS use in month of June. | Delavan-Darien H.S. |
| 2. | Useless! System still not operating as I was told that it would. | Kenosha, Bradford H.S. |

CESA # 19

| | | |
|---|---|---|
| 1. | All counselors at this school were continually busy with testing and a heavy programming schedule | Milwaukee South (MPS) |
| 2. | We hope to make better use of computerized WOIS next year. | Port Washington H.S. |
| 3. | Computer use limited because of an unusual amount of "down" time. | South Milwaukee Sr. H.S. |

CESA # 2

| | | |
|---|---|---|
| 1. | Many thanks to Monika and Dave for your help in a difficult situation. New principal next year so it may change!! | Northland Pines H. S. Eagle River |

SUMMARY (Other Sites)
MAY

CESA # 1

1. I found that more students inquired about WOIS this month than before. Many had heard of it in school but didn't use it. — Ashland Job Service

2. I have initiated application for entry into MACC system from Madison. — WITI-Superior

CESA # 3

1. We will push use of WOIS in the Fall. — UW-Center-Marinette

CESA # 6

1. 107 women used the printed materials at a "Women's Day" activity. — (Eau Claire) VTAE District One

CESA # 8

1. I'm sorry to hear the NOCC file is being reduced and combined with SOCC. I feel this will be detrimental to our use of WOIS. — UW Center-Fox Valley

CESA # 10

1. There has been a lot of pressure to use self-service cassettes and job banks here at Job Service. Also pressure to use interest tests like the Kuder. The WOIS personal profile is not counted as a valid interest inventory so I have discontinued its use. Also we have enough trouble getting clients to watch audio-visual cassettes, let alone the rather complicated WOIS materials. — Manitowoc Job Service

CESA # 14

1. We do not have the computer terminal anymore. Mr. Starr is no longer with Southwest Tech. He was the computer coordinator here. — Southwest Wis. Voc. Technical Institute

CESA # 18

1. We have just had our agency training session so our use of the system was minimal for the month of May. — Lakeland Counseling Ctr.

2. I feel the WOIS is very helpful in providing thorough information on career resources to our participants. — (Burlington) Youth Resources, Inc.

CESA # 18 con't

| | | |
|---|---|---|
| 3. | As a prime sponsor, we make no direct use of WOIS printed materials. Subgrantees to us are users. | (Racine) TRICO-CETAC |

CESA # 19

| | | |
|---|---|---|
| 1. | Most inquiries can be answered by our collection of individual college catalogs which provide the answers our students request. | (Milwaukee) MATC Library |
| 2. | WOIS has never been used in this office. | Milwaukee Skill Center |
| 3. | Unable to find needed information--looking for training resources and employment statistics on tax assessers. | (Milwaukee) Rehabilitation Resourses |
| 4. | Bill Richard has moved to Central. Virginia Wentzel is the person to send this to. | (Job Service) Milwaukee South |

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Roger H. Lambert, associate director

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